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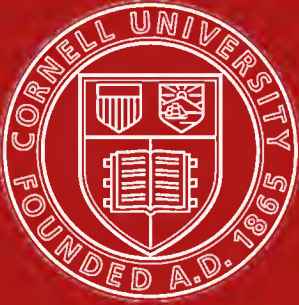
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London County Council



TECHNICAL EDUCATION BOARD.

REPORT

OF THE

SPECIAL SUB-COMMITTEE

ON

COMMERCIAL EDUCATION.

(Adopted by the Technical Education Board, 20th February, 1899.)



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London County Council.

TECHNICAL EDUCATION BOARD.

Report of the Special Sub-Committee on Commercial Education.

INTRODUCTORY MEMORANDUM.

The Special Sub-Committee on Commercial Education was appointed by the Technical Education Board on May 17th, 1897, when, upon the motion of Mr. T. A. Organ, a member of the Council, the following resolutions were adopted by the Board—

(1.) That a special sub-committee be appointed to consider and report upon the special agencies which exist within the County of London for giving "commercial education," and to suggest plans for establishing other agencies and increasing the efficiency of those already in existence.

(2.) That the special sub-committee consist of the chairman and vice-chairman of the Board, and the chairmen of the standing sub-committees.

At its meeting on 12th July, 1897, the Board adopted the following resolutions—

(3.) That Mr. Frank Debenham, late member of the Council, Mr. J. Easterbrook, and Sir Philip Magnus be appointed to serve upon the sub-committee.

(4.) That the sub-committee be empowered to incur expenditure incidental to the inquiry and to invite experts to attend its meetings for the purpose of giving evidence.

In accordance with the above resolutions the sub-committee was composed as follows—

Mr. Sidney Webb, member of the Council, chairman of the Board (1897).

„ Edward Bond, member of the Council, vice-chairman of the Board (1897).

„ Edric Bayley, member of the Council, chairman of the Domestic Economy Sub-Committee.

Dr. E. B. Forman, member of the Council, chairman of the Finance and General Purposes Sub-Committee.

Sir Owen Roberts, chairman of the Polytechnics Sub-Committee.

The Hon. E. L. Stanley, chairman of the Scholarships Sub-Committee.

Mr. T. A. Organ, member of the Council, chairman of the Science, Art and Technology Sub-Committee.

Mr. L. B. Sebastian, chairman of the Secondary Schools Sub-Committee.

„ F. Debenham, member of the London Chamber of Commerce, and formerly member of the Council.

Mr. J. Easterbrook, headmaster of Owen's School, Islington, and representative of the Incorporated Association of Headmasters upon the Technical Education Board from February, 1894, to March, 1898.

Sir Philip Magnus, superintendent of the Examinations Department of the City and Guilds of London Institute, and representative of the London Parochial Charities Foundation upon the Technical Education Board.

At a meeting of the Board held on March 28th, 1898, when the question of the constitution of the sub-committees for the year 1898-9 was under consideration, all the members named above were re-appointed, and the following were added to the sub-committee—

The Rev. C. G. Gull, headmaster of the Grocers' Company's School, Hackney-downs, who in March, 1898, was appointed as the representative of the Incorporated Association of Headmasters upon the Technical Education Board.

Mr. Graham Wallas, chairman of the School Management Committee of the School Board for London, who, in March, 1898, was appointed as one of the representatives of the School Board upon the Technical Education Board.

We elected Mr. T. A. Organ as our chairman at our first meeting, and he has presided on every occasion. We have held 11 meetings, and have interviewed 12 persons engaged in business or connected with institutions in which education is given in commercial subjects. A full report of the evidence given will be found in Appendix I. For a period of six weeks in June and July last we secured the services of Mr. E. H. Fishbourne, M.A., Barrister-at-law, late of Jesus College, Cambridge. Mr. Fishbourne prepared a valuable précis of the reports of several continental schools, which précis we present as Appendix III., but much of Mr. Fishbourne's time was occupied in interviewing 42 representative business men, from whom he obtained an expression of their views on the subject of commercial education. Mr. Fishbourne's report of these interviews is given in Appendix II. We have collected a large amount of information with regard to the provision of education of a commercial character in the various public educational institutions of the metropolis. Much of this information is embodied in the substance of our report, and further particulars are given in Appendix V.

We desire to express our obligation to all those gentlemen who have favoured us with expressions of their opinions, and supplied us with information, especially to Professor Layton, of the Antwerp Higher Commercial School, to whom we were indebted for a valuable report on the Congress held at Antwerp in April, 1898, which was published in full in the *London Technical Education Gazette* for May, 1898.

We have given very careful consideration to the evidence and reports which have been submitted to us, and we now submit our report as follows—

REPORT.

Importance of the enquiry—The national point of view.

In conducting our investigations upon the subject of commercial education, we have been greatly impressed with the feeling that the matter is one of supreme national importance. The great increase of foreign competition which has been felt by those engaged in almost every branch of commerce and manufacture has aroused a wide-spread feeling of alarm in the community. It is becoming more and more clear that among the principal causes which are threatening us with a grave diminution of international trade must be placed the better education enjoyed by many of our competitors. The reports of British consuls, numerous extracts from which have been submitted for our consideration, speak with an almost unanimous voice upon the injury which is being done to British trade by the want of linguistic training, of local knowledge, of insight and adaptability, which is shown by British manufacturers and commercial firms, and especially by their representatives abroad.

As specimens of the consular reports, which have been brought before our notice, we give the following extracts—

Mr. MEDHURST, reporting on the Nijni-Novgorod Exhibition in 1896, wrote as follows—"If we intend to retain our trade with Russia, we must employ better-educated travellers, who can converse with Russian buyers, and thus learn their requirements and listen to their complaints." (*Consular Reports, Miscellaneous Series, No. 409.*)

The British consul at Rio de Janeiro wrote in 1896—"For many years past I have in my reports inveighed *ad nauseam* against the system of British manufacturers adopting catalogues instead of employing commercial travellers cognisant of the language of the country, the exigencies of the trade, customs tariff, exchange and freights, so as to be able to figure out at once to a customer at what cost he can lay down the goods on the market for cash or at so many months' credit." (*Consular Reports, Annual Series, No. 1,874.*)

The British consul at Trieste wrote in the same year—"English travellers are, as a rule, behind their foreign colleagues in knowledge of the principal languages of Europe, and a great deal of such success as the latter have at present is due to the universally superior education in this direction among almost all classes on the continent." (*Consular Reports, Annual Series, No. 1,875.*)

The British consul at Riga, writing in the same year, made the following significant remarks about the export of machinery—"The German keenly studies requirements as well as custom house tariffs, and knows the weight of his machine as well as the cheapest way of sending it; he can calculate to a nicety, and translates his prices into Russian currency, delivered duty paid at a Russian sea-port, while this necessity is not recognised by the English, with some exceptions. The Americans send out broadcast enormous quantities of illustrated price lists of machinery, tools, etc., not only with prices reduced to Russian roubles, delivered duty paid, but printed in the Russian language, the weights and every possible detail being supplied, whereas the Englishman contents himself with sending over price lists in the English language and English currency." (*Consular Reports, Annual Series, No. 1,901.*)

Similar extracts from consular reports might be multiplied indefinitely, but the above will serve to show what importance is attached by Her Majesty's consuls to the desirability of training Englishmen for commercial life. One of the most instructive reports recently issued on the subject is that of Mr. Consul Powell, on commercial education in Germany, which was published in November, 1898. He states that his report is intended "to make it apparent how widely and energetically the German nation is aroused to the necessity of commercial education as an important factor in their newly-developed competition with other trading nations, and especially is it noteworthy to remark how the study of modern languages is being encouraged and fostered by the nation at large."

"The question of living languages," he proceeds to say, "is one of the most important, for without that knowledge a commercial nation, though in the first position with regard to her manufactures and goods, must lose much in competition with other nations who possess the gift of tongues. It is always difficult to make a person believe that your goods are the best, but it becomes impossible if you cannot address him in his own language. I find that foreigners are willing enough to speak English with an Englishman for society purposes, but when it comes to business they prefer their native tongue. Again, when there are two applicants for a foreigner's custom, on otherwise equal terms, one who speaks with him in his own language and one who does not, can there be any doubt as to which will successfully carry the business through?" (*Consular reports, Miscellaneous series, No. 483, p. 8.*)

Interest of London in the question.

Enough has been said to show that the question of commercial education is one of national importance. But we are of opinion that it is a question which concerns the citizens of London more than any other British subjects. For London stands alone as the greatest commercial centre in the world and as the heart of the British empire. London has not only a larger population of "clerks" than any other city in the world; it has probably also a larger proportion of clerks to the whole population than most other cities. Everything which affects British trade must affect London in a special degree; and it is only fitting that any measures which are to be taken for the defence of our commercial supremacy should be put forward in the first instance by the merchants and citizens of London.

Efforts have been made in the past to arouse in London a sense of the importance of the question of commercial education. The London Chamber of Commerce has for several years sought to encourage the study of commercial subjects in schools by the institution of periodical examinations and the award of certificates and prizes; but the field to be covered in London is so vast that the efforts of the Chamber

have not yet been able to make a very marked impression, and it has become clear that in order to secure the fullest effect it is necessary for all agencies to co-operate in working out some definite scheme.

Time ripe for action.

The present time appears to us to be a particularly favourable time for taking action in London. A year-and-a-half ago much interest was aroused in London by the meeting of the International Congress on Technical Education under the auspices of the Society of Arts, when many valuable papers were contributed both by Englishmen and foreigners upon the subject of commercial education. Last spring an important international gathering was held at Antwerp, specially to discuss general questions connected with commercial education, and last summer a very representative conference was held in the Guildhall, on the invitation of the London Chamber of Commerce, in order to consider what steps should be taken to develop commercial education in the metropolis. Both the papers and the discussion at the last-named conference evinced a wide-spread conviction that something practical should now be done to better equip our youth for commercial life, and at the close of the conference a special committee was formed to devise the best method of formulating a scheme for the purpose.

Other recent events have also pointed to the desirability of early action being taken. The Government have promised to introduce some measure for dealing with secondary education, and the outlines of a scheme for dealing with part of the subject have been laid before the country. Educational legislation may therefore be expected at an early date, and although it is possible that the whole range of secondary education may not be dealt with at once, yet the introduction of any Government measure is bound to arouse that public interest in the subject which it is so important to secure, and such a time will be specially opportune for obtaining public support to a well-considered scheme of reform. Another event which makes the present moment especially favourable for initiating a policy of educational advance is the passing of the London University Act in the session of 1898. It is generally understood that the new University will offer distinct encouragement to economic and commercial studies, and that an institution such as the London School of Economics and Political Science (see Appendix V, pages 78-83), where the higher branches of commercial law and economy are taught, will probably become an integral part of the University.

Taking all these circumstances into account, we are strongly of opinion that the time has now come for action to be taken in London with a view to the development of commercial education. In a subsequent part of our report we shall deal with the question of the best method to be adopted.

Different views of commercial education.

We have found during the course of our enquiry that there is considerable variety of opinion upon the subject of commercial education. On the one side we have found commercial men who maintain that the only commercial education that is worth anything is the practical experience of work to be obtained in a business house. "Let a boy come to us," they would say, "at 14 or 15, and he will learn all that he ever need learn in the actual work of commercial life." According to this view, specialisation should commence on leaving the elementary school, and the words "commercial education" should give place to the words "business routine." On the other hand, we have found educationists who maintain that the only proper training that can be given for business is that afforded by a general education, and that business itself cannot be taught. As an instance of the former school of thought, we would mention Sir John Blundell Maple, Bart., who, in giving evidence before us (see Appendix I., p. 20), stated that he preferred to take boys direct from charity schools, and that in his opinion "houses like Shoolbred's would form good schools for the consular service." As an example of the latter class we would instance Sir Bernhard Samuelson, Bart., who, in giving evidence before us (see Appendix I., p. 21), laid stress upon the importance of developing general secondary education to meet the needs of commercial life, but thought that, on leaving the secondary school, a young man should not receive any special commercial training, but should proceed direct to business. The upholders of these two points of view differ materially in the value which they place upon a good general secondary education for purposes of commerce, but they agree in regarding it as impossible for anyone to be trained for business except in the office or the warehouse.

It appears to us that among those who regard the matter from either of the above points of view, the disbelief in commercial education arises partly from devoting the attention mainly to one particular section of commercial life, and failing to realise the great varieties of interests involved; and partly from giving too narrow a definition of commercial education and failing to appreciate how many various branches of study the term, when properly understood, implies, and the thoroughly educational manner in which commercial subjects may be taught.

Grades and grouping in the commercial world.

It is important to recognise at the outset that, as Professor Hewins has pointed out in his evidence (see Appendix I., page 1), it is impossible to treat the "business man" as a genus by himself with certain fixed characteristics and certain fixed requirements. The world of commerce or business is made up of a great variety of persons employed in very diverse functions and with very diverse needs.

(1.) There is to begin with the great army of office boys, junior clerks, shorthand clerks, copyists, typists, junior book-keepers, ledger clerks and accountants. These and similar employees are engaged in operations which are mainly mechanical, but which require for their effective discharge certain valuable qualities, such as honesty, accuracy, patience and docility.

This class is by far the most numerous of any, and the special education its members require is essentially primary in its character.

(2.) Then there are the employees in more responsible positions, such as senior clerks, correspondence clerks, managers of departments, agents, dealers and travellers. The members of each of these classes fall into a large number of groups according to the nature of the work in which they are engaged, *e.g.*, manufacturing, shipping, home trade, foreign trade, finance, banking, insurance, railway service, mercantile service, municipal service, civil service. Again, there are countless sub-divisions under the heads of trade and manufacture according to the nature of the wares and products which form the staple of the business.

It is on this class of employees that the country has in a large measure to rely for the maintenance of its trade in competition with other nations. They require secondary education either of the first grade (up to 18) or second grade (up to 16) in commercial subjects.

(3.) Finally, there are the great employers of industry and the heads of large firms and business houses. To this class should be added the experts employed in government and municipal service, among whom it is to be hoped it will before long be possible to include a considerable number of "commercial attachés" engaged in the consular service.

This class, though the least numerous, is in many ways the most important, as it is on them that the organisation of the whole framework of our commercial life rests. They require commercial education of the tertiary or university type.

It should be borne in mind that it is not enough to provide only such education as is requisite for each grade and each group up to the time at which the pupils leave school and enter their offices. However well prepared may be the boy of 13 or 14 for the comparatively routine work that falls to his lot at that age, he will not be able to become a really efficient clerk even of the lowest grade unless he continues his education side by side with his office duties. However thoroughly we may educate the boy who remains at school until 16 or 18, he will find himself seriously handicapped as a manager or traveller unless he adds to what he has learnt at school a wider knowledge, whether it be of foreign languages or of the economic conditions of this and other countries, than he can pick up in his business work. It is, moreover, a marked feature of the business world that each grade, even the highest, is recruited to a very large extent from those below it. It is therefore important to provide, within reach of the clever office boy or junior clerk, an effective opportunity for him to acquire an education that will fit him, not only for his present humble duties, but also for those to which his ability will enable him to rise.

Finally, there is the need—perhaps supremely important under present economic conditions—of developing in all grades of commercial men, the invaluable quality that we may describe as inventiveness, resourcefulness, readiness to note a change of conditions, and fertility in conceiving new expedients to meet the new circumstances. One of the common causes of commercial stagnation and decay appears to be the dulness of imagination, which stands in the way of a timely appreciation of changing conditions, and the inertness of mind which prevents the adoption of the new expedients called for by the change. This lack of imagination and inertness of mind, a characteristic result of absorption in routine, is often partly caused or increased by a want of general cultivation, an ignorance of possible alternatives, and too close an adhesion to one limited field of observation and work. To supply this want is especially the object of commercial education of the tertiary or university grade.

The function of commercial education.

It is thus clear that we must recognise different grades of workers in the commercial world distributed over a large number of diverse groups. The workers in each department have their own particular functions, which education should fit them to discharge.

(1.) For those who commence work in the lower branches, what is most needed is a good grounding in the elements of knowledge, supplemented by one or two special acquirements such as shorthand typewriting, or book-keeping.

With regard to shorthand, Prof. Layton (Appendix I., page 8, note E) and Mr. Van de Linde (Appendix II., page 25) attach importance to the subject as a *supplement* to a general course of training. With regard to book-keeping opinions seem divided; some witnesses, such as Mr. Laycock (page 30), Mr. Baker (page 30), and Mr. Webb, of Messrs. D. H. Evans and Co. (page 35), advocate its being taught; while others, such as Mr. Bellbrough (page 29) and Mr. Schares (page 34) regard it as useless to teach it.

In the case of employees of this class a continued education in evening classes is needed to reveal to them the principles that underlie their work and to fit them to undertake higher work when opportunity offers. Many of the business men who were interviewed by our representative dwelt upon the value of evening classes to boys who commence business life early. By studying at evening classes they "learn to use their brains instead of being mere machines." (Mr. Green's evidence, Appendix II., page 31.)

(2.) For those who commence work in more responsible positions a fuller course of training adapted to their special requirements is desirable. The mind should in the first place be trained in habits of accuracy, power of calculation and breadth of view, while clearness of expression both in speech and writing should be cultivated. (On the last-named point an interesting piece of evidence was given by Mr. Shannon, of Coutts' Bank (Appendix II., page 28), who stated that, through the lack of power to express themselves in writing, men had often lost good opportunities of promotion.) Side by side with the mental development should go an acquisition of one or more foreign languages, which should be so taught that they could be readily used in every-day life. At the same time an insight should be obtained into the general principles of political economy, which underlie all commercial relations. Fuller particulars as to the nature of the education suited for employees of this class are given below (pages vii to ix.)

(3.) For those who are destined to take the positions of captains of industry or leaders in commercial life, opportunities should be given for acquiring a still deeper training. Not

only should foreign languages be studied, but a thorough knowledge should be obtained of foreign systems of industry and the laws of international exchange as well as of the principles of political economy and of commercial and maritime law. For it must be admitted that there are sciences which underlie commercial life as there are sciences which underlie industrial life, and it is important for the nation that the leaders of commerce as well as the leaders of industry should be men who base their work upon law and science. (Fuller details of the course of education suited for a higher commercial school are given below, pages ix. to xiv. See also the remarks at the close of Professor Hewins' evidence, Appendix I., page 3.)

It is evident, therefore, that commercial education has a wider field before it than would appear to some at first sight.

General and special education.

It would be futile to suppose that it would be either possible or desirable to separate from the commencement the boys destined for each particular branch of commercial life and give them a distinct education from the start. Matthew Arnold showed long ago the futility of the "little bagmen" type of schools, and our witnesses were all agreed that up to a certain point all citizens should receive a similar general education. "Commercial education," as Mr. Montague Barlow said (Appendix I., page 13), "is a superstructure, and can only be given after a good foundation in 'ordinary school subjects.'" There comes, however, a point where it is desirable that education should be somewhat differentiated according to the general nature of the work which is likely to form the pupil's life-work; but we consider that such differentiation should be at first little more than differentiation of type, and it is only at the final stage that we are of opinion that detailed specialisation should be permitted. In our view, therefore, commercial education must be regarded as covering a considerable part of the field of what is usually known as "general education." It is impossible, in dealing with educational matters, to map out the field of education into absolutely distinct divisions. It is of great importance to recognise that the various branches into which education naturally falls, according to the work in life for which the student is being trained—such branches as professional or literary education, technical education, commercial education—are not mutually exclusive, but cover a large amount of common ground. All branches alike should include a wide range of general education before any specific differentiation is commenced. It does not follow that such general education will not be coloured by the direction in which the final development will proceed. In fact, we are of opinion that it is very desirable that general education should not be always of one type. The term "general education" has too long been usurped by the supporters of the classical system, who have been apt to think that any subjects outside those of the old grammar school régime should be branded as "specialisation." We see no reason why it should not be possible to give a good general education by means of different combinations of subjects. In one combination the "tone" may be given by ancient languages, in another combination by "modern languages," in another by science; but there is no reason why each combination, whatever the predominant note may be, should not form a good general education. On this point we would quote some remarks made by Mr. Scott at the Conference on commercial education, held at the Guildhall last June, at which the Board was specially represented.

In summing up the general conclusions of the Conference, Dr. Scott said—"We have had, however, before us to-day one point on which there seems to be general agreement. There seems agreement that it is possible to have a modern education drawn entirely on modern lines, out of which can be got the same discipline of mind, and the same discipline of conduct that can be got out of the old classical languages. They have found that true in Germany, and I am convinced we can find it true in England, if only we can set ourselves to work out the different types of secondary education that this nation should have at its command."

The Rev. T. W. Sharpe, C.B., in a report upon the Whitechapel Foundation School, quoted in Appendix V., pages 71, 72, makes the following remarks—"It may be assumed that it is possible to give a liberal education by means of those subjects which are especially needed for a commercial training. Such subjects may be taught in a manner which may be called 'human,' and should be divested of commercial technicalities, which can be more readily taught in a short time in a place of business. Among such subjects are English literature, the growth of English institutions as one aspect of history, travels and discoveries in geography."

Dr. Wormell also, in giving evidence before us, laid stress on the educational value of modern languages as quite comparable with that of ancient languages (see Appendix I., p. 16). Interesting suggestions with regard to the combination of general education with a special commercial tone were made by Professor Hewins (Appendix I., p. 2), and by Dr. Wormell (p. 16), who said—"A bias is already given to scholars' education when they wish to take up certain subjects thoroughly by arranging the curricula to meet their wants. The same bias might be given in the case of those who intend entering into commercial life."

The kind of education that is needed.

The statements of experienced teachers such as those named above, as well as the enquiries which we have made into the provision for commercial secondary education (some particulars of which are given in Appendix V.) have impressed upon us the strong conviction that one of the principal needs of the present moment is the extension of a type of education which will supply that training and disciplining of the mental powers which it is the function of a general education to impart, but which will at the same time receive its colouring not from the traditions of the ancient seats of University culture nor from the regulations of a Government Department, but from the realities of actual life. Such a

system should reach its full development in London in the more specialised work of higher schools and institutions, which should be in close touch with the new economic and commercial faculty of the University on the one hand, and with the business and commercial world on the other.

The introduction of such a system does not by any means necessitate the establishment of a number of "commercial schools" side by side with the present "secondary schools." We rather incline to the view of Sir John Lubbock, expressed in Appendix II., page 27, that the best policy to adopt is the "perfecting of existing agencies." It is true that in some foreign countries such special schools have been widely introduced; in Germany, for instance, a large number of towns possess a Handelslehranstalt or commercial school (see Appendix III., *passim*). But we by no means consider that, because a certain system of education is in vogue on the Continent, it is necessarily the right system for this country. With regard to the German system, it is to be noticed that the vast majority of these special commercial schools are of very recent date, and we are inclined to agree with Consul Powell, who, in the report from which we have already quoted, states that in his opinion the increase in the commercial prosperity of the country was due, in the first instance, to the high state of its general education, and that the great development of special commercial schools is rather a result than a cause of commercial successes. We must, however, remember that "general education" in Germany includes the celebrated system of Realschulen, modern schools in which no ancient languages are taught, but in which the teaching of modern languages on scientific principles has been developed to a remarkable extent. It is this type of school which, as Consul Powell urges, is so much needed in this country. We already possess in some of the principal endowed grammar schools in London and elsewhere schools which have gone a considerable way towards realising the required type (see particulars given in Appendix V., pages 70-72). What is required is to still further strengthen such schools, and to encourage others to develop on similar lines. Much of our "modern" work is still hampered by old literary traditions; much is rendered ineffective by lack of proper teachers. We must face the problem, as other nations have had to do, of combining in a "modern" education the two essentials of sound training and adaptation to actual life. How successful Germany has been in solving this problem is shown by several papers in the special reports on educational subjects recently issued by the Education Department (Vol. III., pp. 461-553). If we would hold our own in the commercial struggle for existence, we must set ourselves to remedy our defects, and develop, if possible, an even better system than our neighbours.

We shall proceed to indicate briefly in what main respects our present system of education appears to us to fall short as a training for commercial life, and what improvements might with advantage be introduced.

Principal points in which our present systems of education can be improved so as to give a better training for commercial life.

I.—*Elementary day schools.*

It was universally agreed at the Antwerp Congress,* held in April, 1898, that specialisation on commercial subjects in primary schools is strongly to be deprecated (see opening of Professor Layton's evidence, Appendix I., page 3). Whatever branch of commercial life a boy is destined to enter, it is essential that he should receive as broad a foundation as it is possible to give in the elementary school. It is fatal, for instance, for a boy of twelve to neglect the principles of arithmetic in order to acquire speed in casting columns of figures, to limit his manual training to an acquisition of shorthand or typewriting, or to confine his interest in geography to a study of trade statistics. At the same time, it is possible to make the teaching in elementary schools both more interesting and more useful by bringing it more into relation with actual every-day life. Arithmetic will be more real to a boy and therefore will train his mind better, if the sums presented to him introduce problems that might arise in his own home life rather than problems which live only in that isolated portion of his brain to which he usually relegates all questions relating to "sums." It is also very desirable that boys should be encouraged to calculate areas and volumes from linear measurements made by themselves, and thus be brought at a very early stage face to face with actual and practical problems. The importance of the teaching of mental arithmetic in relation to real life is shown by the evidence of several witnesses, especially Mr. Laycock (p. 30) and Mr. Idris (p. 32).

History, as pointed out in the Evening Continuation Schools Code, will assume a new meaning in the pupil's eyes if he connects it rather with familiar objects, such as the soldier and policeman, the store and the docks, than with names of kings and dates of battles; similarly, geography will assume a new meaning to him if he is made to realise that he may one day have to depend for his existence upon whether he or his comrades can induce the inhabitants of certain distant spots to buy certain articles which he and others have helped to make. The reality of a boy's studies may be brought to his mind in a very forcible way by organising visits to works, manufactories, warehouses, docks, &c. Similar visits are already sanctioned in the Code, and the time spent upon them is allowed to count as school attendance. Very successful experiments in this direction have recently been tried at an elementary school in Exeter. The weakest point in our school system is the isolation from everything of a practical nature in which both teachers and scholars are generally educated.

Perhaps the most important detailed point to insist upon at the present time for increasing the connection between the elementary schools and commercial life is the *universal teaching of the decimal system* in its application to all branches of calculation, especially money, and of the *metric system* in its relation to weights and measures. One of our greatest drawbacks in commercial dealings with other nations is our adherence to an antiquated and cumbersome system of coinage and of measurements. The decimal system may one day become compulsory in this country, but whether this is so or not it would appear that for domestic purposes the present system is likely to die hard;

and therefore the most practical way of compensating for this national disadvantage is to render familiar to every child throughout the length and breadth of the land the system adopted in foreign countries. Not until every junior clerk is as familiar with the metric system as with pounds and ounces, feet and yards, will British houses stand on a level with continental competition in foreign markets. When the Swedish people resolved to introduce the decimal system, one of the first steps which they took was to order it to be taught in all the schools. When the system had been taught for some years it was put into actual operation. Possibly in England the case may be reversed and the universal teaching of the system may bring about the decision to introduce it into actual life.

In connection with the elementary schools there should be organised *higher-grade or higher primary departments* which would give a more specialised training to those boys who intend to enter business at about the age of 14. Such schools could perform an extremely useful work by continuing the general education given in the primary schools, and at the same time preparing boys more specially for commercial life by giving regular instruction in subjects specially required, such as handwriting and *précis*-writing, French, shorthand, type-writing, and the elements of book-keeping. The evidence of employers given in Appendix II. shows the great need for special attention being given to the requirements most needed for a commercial office. While different employers vary in the stress they lay upon different subjects, they agree in recognising the need for further developments. Mr. Finch (p. 29) remarked that "not one of the clerks in his company could read a French letter." Mr. Baker (p. 30) said that "in the matter of book-keeping it is almost impossible to find a competent book-keeper among the regular run of clerks," and that "shorthand and type-writing, both useful subjects, "were known by comparatively few, and there was no attempt to teach boys to write rapidly."

It is true that shorthand and type-writing should, as Professor Layton (page 8) remarks, be regarded rather as "useful accomplishments," than as educational specialisation; but they are accomplishments which might well be taught at a school of this nature *so long as the more general education is carried on at the same time*; and even in the teaching of such subjects as these, a considerable amount of training may be imparted. As Mr. Van de Linde points out (Appendix II., p. 25), "in order to acquire these "accomplishments (especially shorthand) you must undoubtedly bring to bear, and that in a very "marked degree, the exercise of indomitable painstaking, perseverance and pluck." Lads who had spent two years at such a course of combined general work and special training would have a chance of entering a commercial career under much better prospects than if they left school immediately on passing the standards. Many girls as well as boys would no doubt take advantage of the opportunities offered by such continuation schools, as the number of posts open to women shorthand writers and typists is daily increasing. Schools of this type have already been established in several districts by the London School Board, but considering the very great number of boys who every year are entering commercial life at the age of 13 or 14, there is room for an increased systematic development of this type of school. The Technical Education Board might, we think, well consider the desirability of making some of its junior county scholarships tenable at such commercial continuation schools. In many cases the continuation school should have an industrial as well as a commercial department, though it is only with the latter that this report is concerned.

II.—Secondary day schools.

There is a variety of opinion with regard to the amount of specialisation which it is desirable to introduce into secondary schools in the direction of preparation for commercial life. Of those who are engaged in educational work there are some, such as Mr. Goffin, headmaster of the United Westminster School, who do not consider any specialisation necessary, while others, such as Mr. Robert Mitchell, director of education at Regent-street Polytechnic, and Mr. W. Taylor, headmaster of Sir Walter St. John's School, who have introduced a considerable amount of special training (see letters in Appendix V., pages 70, 71). The general opinion of those who are engaged in commerce seems to be that the work of the schools is, on the whole, not sufficiently in touch with actual life, and that, as Sir John Lubbock remarks (Appendix II., page 27), "secondary "education is too academic, and should be supplemented by the teaching of commercial science and "foreign languages." After a full review of all the evidence, we have come to the conclusion, as pointed out above, that it is of great importance that a high standard of general education should be maintained; while we feel at the same time that a greater variety might well be introduced into the methods of imparting such education.

With regard to the importance of general education, public opinion is, unfortunately, in this country, far behind what it should be. Some people who destine their sons for a life of business assume that, because 20 or 30 years ago a lad could enter business at the age of 14 without suffering in his career, therefore he may do the same at the present day. They forget that in the intervening period three movements have been taking place which have entirely altered the situation. In the first place the system of elementary education has been universally developed in European countries, so that a lad who enters on his life-work at 14 has, as far as his training is concerned, little to differentiate him from any other lad in the kingdom. In the second place there has been an enormous development in most continental countries (and especially in Germany) of systems of secondary and higher education specially adapted to the needs of modern life, so that in all those branches of trade in which we come into direct competition with foreigners we are being placed more and more at a disadvantage. Lastly, the number of points at which we come into contact with foreign countries in commercial dealings has been continually increasing of late years, now that nations have become so keenly alive to the necessity for expansion beyond the seas. Our trade is therefore becoming more international and cosmopolitan every year, while we continue in our educational policy to adopt an attitude of insular isolation. Such a position will clearly soon become untenable; and it is to be hoped that the British public will come

to realise, before it is too late, the absolute necessity of young men being equipped by a sound education to play their part in the life of the nation. No British citizen who can possibly manage to keep his son at school should withdraw him before the age of 16.

We are glad to find that many of the business men whose evidence has been presented to us show themselves fully alive to the value of a continued education. Mr. Glennie (page 29) stated that "he did not believe in taking boys away from school at 16, but thought rather that opportunities should be afforded to them there of acquiring what would be useful afterwards, such as foreign languages taught practically. A boy leaving school too early was deficient in gumption."

Again Mr. Laycock (page 30) stated that "a boy who went, on leaving school at 15, to an advanced commercial school for two years, although at 17 he would not be of so much value to his employer as the boy who had gone straight into the business, would, in his opinion, turn out to be the better man in the end."

Mr. Antrobus (page 33) stated "that specialisation for one or two years, beginning at 15, based upon a good secondary education, would put a man years ahead of one without such training."

We trust that such opinions will become more and more general, and we feel that one of the best ways of spreading them is to perfect our system of education as much as possible.

There will be for a long time to come, presumably, plenty of boys who are absolutely compelled to go to work at 13 or 14. Their case must be met by the primary and higher primary school, as described above; they will necessarily enter the world of commerce on the lowest rung, and, though by studying at evening classes and by special application and aptitude they will have opportunities of rising to high positions, yet in the main the more responsible work must fall to those who have received a more complete training. Such training it is the duty of all who can to acquire, and such training it rests with the secondary schools to give.

Commercial education of this grade is already provided in London to a considerable and an increasing extent. We think that it is not perhaps sufficiently realised how much excellent training for commercial life is already being given in the public secondary schools. Critics who compare our own systems of education with foreign systems are apt to overlook most institutions for secondary education in this country, other than what are known as the great public schools. It is true that the provision of secondary schools in London, as elsewhere, still falls far short of what it ought to be; but, notwithstanding this fact, there is a large amount of well-organised and efficient instruction, of the kind best fitted to produce well-educated commercial men, being conducted in the endowed schools under schemes of the Charity Commissioners, in schools attached to polytechnics and technical institutes and in other institutions. In London there are no fewer than 46 public secondary schools for boys and 46 for girls providing education in all cases up to the age of 16, and in some cases of 18 or 19. Of these schools 49 are receiving aid from the Technical Education Board towards the development of science and technical teaching. Many have developed their foreign language teaching to a considerable degree; all include the teaching of French in their curricula; about 30 teach German and at least three teach Spanish (University College School, the Mercers' School and the Whitechapel Foundation School).

Particulars as to certain typical schools will be found in the letters given in Appendix V. The school at Regent-street Polytechnic is a good instance of a specialised commercial side (see page 77).

Secondary schools which aim at preparing their pupils for business life naturally fall into two classes—

(a) Second grade secondary schools, or those at which the pupils usually leave about the age of 16.

(b) First grade secondary schools, or those at which many of the pupils stay on to the age of 18 or 19.

The second grade schools will serve mainly for the training of that important class of employees who were referred to above (page iv. top) as the second main division in the commercial world, such as commercial travellers, agents, managers of departments, and correspondence clerks, from whom it must not be forgotten the highest grades are to a great extent eventually recruited. The first grade schools will form the special training ground for the superior commercial traveller whose business it is to open up foreign markets, for those who are to hold the most responsible positions in banks, insurance offices, and mercantile houses carrying on a foreign trade, as well as for chartered accountants, actuaries, solicitors and other professional men, while it may be hoped that those who are to occupy the positions of heads of large firms and the higher divisions of the government, municipal and consular service will receive still further training in institutions of university rank.

The curricula of these two types of schools must necessarily be somewhat different, though both will be dominated by the common aim which they have in view.

(a) *The second grade schools* would naturally have a more restricted range than the first grade schools, though on the whole the subjects of instruction would be similar. The principal elements in the curriculum would be modern languages, mathematics and science, besides the indispensable subjects of English literature, history and geography. We are of opinion that Latin need not form a compulsory part of the curriculum of these schools. We fully appreciate the value of Latin as a mental training, and this opinion is shown by such practical business men as Sir Whittaker Ellis (Appendix II., p. 27), but we think there is much to be said for the opinion of those educationists, whose views have been already given on page v., that an equally efficient training for boys destined for commercial life can be given by modern languages, if taught on right principles. There would, moreover, be considerable advantage if the exercises and themes for translation were taken less exclusively from the masterpieces of French and German literature. Pupils who have been trained entirely in translating Schiller or Molière into English, or Sir Walter Scott into German or French, find themselves seriously at a loss when they have to write a business letter, or to translate a bill of lading. Whatever may be said as to style, the actual vocabulary of

modern business life forms as essential a part of the language as the terms and phrases used by the classic authors of a bye-gone generation—forms, too, just that part of the language which the business man requires. The pupils should, moreover, be made thoroughly familiar with the foreign language, not merely as spoken by business men on business matters and as printed in books, but also as written. The higher classes at any rate should be practised in reading foreign handwriting, and even in learning how to write a foreign letter. The Society of Arts has for many years included in its examinations in foreign languages a knowledge of business vocabularies, and (as regards German) the capacity to read fluently an ordinary German handwriting of not too crabbed a type. There seems to be room for a series of schoolbooks in foreign languages, supplying actual examples of business correspondence in various departments, such as manufacturing, export and import commerce, banking, insurance, shipping, transport and railway administration, with extensive vocabularies and specimens of the ordinary business handwriting.

We are strongly of opinion that modern languages should be taught, as far as possible, as *spoken* languages. The present method of confining the attention mainly to grammar rules and written translation should be supplemented and to a large extent superseded by a large amount of oral teaching, in which the languages should be, as far as possible, brought home to the actual life of the scholar. It is significant that in Germany French lessons are given in French and English lessons in English, and pupils are encouraged to write original compositions rather than translations. A similar practice should be introduced into these schools, so that the pupils should have an opportunity of hearing and speaking a foreign language every day. A boy on leaving one of these schools at 16 years of age ought to have a practical knowledge of French and German, or French and Spanish, or of any two foreign languages (including Spanish, Russian, Italian and Portuguese) sufficient to enable him (a) to understand an ordinary conversation, (b) to conduct an ordinary conversation, (c) to write a well-expressed letter—not necessarily a purely business letter, but showing some knowledge of commercial terms, (d) to read an ordinary book or newspaper, (e) to decipher easily a letter in ordinary foreign handwriting.

In the teaching of history and geography some insight should be given into the complex organisation of our imperial, municipal and economic life, so that a foundation may be laid for the subsequent study of political economy. The geography and history of other countries should be similarly treated. What is wanted, moreover, is more a geography and history of the world, as distinguished from that of any one country treated by itself. The greatest defect in the ordinary Englishman's knowledge of geography and history is its insularity. Such teaching should be as far as possible descriptive and concrete rather than theoretical and abstract.

Mathematics and science should not be restricted to calculations and operations directly bearing upon commercial life (such as the working out of commercial transactions and the study of commercial products), but instruction of this nature should be included in the more general teaching of these subjects. For instance, practice in international exchanges and problems connected with freight and shipping should be introduced into the mathematical course, while in science (in which the metric system of measurement should be used) some attention might well be devoted to the chemical and physical properties of the commoner substances. In short, the teaching, while conducted on general lines, should at the same time have a commercial bias. The evidence of Dr. Wormell and Sir John Lubbock on this point has been already quoted (p. v.), and is borne out by the opinion of many of the business men who were consulted on the subject. Mr. Baker (p. 31) said that "he would welcome a high grade commercial school with as wide a curriculum as possible, to allow of modification to suit the individual case"; and Mr. Brinsmead (p. 32), Mr. Forbes (p. 36), and others concur as to the need for such a school. We have considered the question of the desirability of introducing a "commercial bureau" or model business house, such as is described as existing at the Antwerp school, the Neuchatel school, and some of the American business colleges (see Appendix III., p. 67, and evidence of Professor Layton and Mr. Montague Barlow, pages 3—9, 12—14). Several of the business men, however, who submitted their views, did not view the system with favour. There appear to be important differences in the manner in which the "bureau" is conducted in different schools, and the American accessories of expensive "store" or office fittings appear not only unnecessary but likely to bring the system into ridicule as a childish "playing at business." The bureau as conducted at Antwerp and Neuchatel seems, however, to be a valuable auxiliary.

One point is essential in connection with a secondary school of a commercial type, and that is that it should not be dominated by any external examination, other than one definitely framed upon its curriculum. The school examinations instituted by the Universities of Oxford, Cambridge, and London, together with those of the College of Preceptors, have no doubt been of great service in testing secondary schools, and maintaining a standard. The examination for commercial certificates instituted as long ago as 1889 by the London Chamber of Commerce, represents an attempt to supply an alternative (perhaps too much of an alternative) to the Oxford or Cambridge Local Examinations, but before it could be adopted by any school as the sole examination up to which the school worked, it would require considerable modifications. On the other hand, to prepare for this examination in addition to others, is open to grave objections. What is wanted is an examination definitely adapted to the curriculum of the commercial school, and this might be grafted on the University Local Examinations in which the examinations of the Chamber of Commerce might then be merged. The London University Matriculation Examination, being the leaving examination of so many schools, might well be modified accordingly.

Success in an examination of this type might on the one hand secure admission to the higher type of school, and on the other entitle the student who passed to receive a junior certificate, which would in time have a definite value in the commercial world. Boys who desired to enter business on leaving this type of school might with advantage acquire during their last year proficiency in some such special subject as shorthand. There is no doubt that it would add to the value of the youth of 16

in the commercial world to possess a qualifying certificate in a subject of such practical utility, and the necessary manual dexterity might be acquired without encroaching unduly upon the more general course of studies. (On the desirability of acquiring such subjects see Mr. Van de Linde's remarks, Appendix II., page 25.) Those pupils who desired to pass on to the upper part of the higher school described above would specialise during their last year on more general subjects, which would prepare them for their higher studies.

(b) *The first grade schools*, where the pupils would stay till the age of 18 or 19, would devote more time to the study of the general structure and formation of languages.

The experiment of concentrating the efforts of pupils in the lower parts of the schools and only commencing Latin in the upper portion has recently been tried with success in Frankfort, and the new method is engaging much attention abroad. It is stated that a familiar knowledge of French proves of great assistance in acquiring Latin, and the latter language is grasped by the maturer pupil with so much rapidity as to suggest that the years devoted to the drudgery of the language in the lower forms of secondary schools, when the mind has not attained the power of prolonged grappling with difficulties, are to a great extent thrown away. (See Mr. Fabian Ware's paper on "The Teaching of Modern Languages in Frankfort," published in the Education Department's Special Reports on Educational Subjects, Vol. III., pp. 461-480.) In any case, whether this be so or not, foreign languages must, in such a school as we are describing, form the dominant element in the instruction, and their teaching must be so directed as to combine mental discipline with the imparting of a familiar acquaintance with the language as a living tongue. As indicated above, in dealing with the second grade school, the instruction should be from the first as far as possible oral, and should be in the hands of teachers who have a thorough first-hand acquaintance with foreign life at the current time. Such teachers should preferably be Englishmen who have spent a considerable time abroad and who have seen something of business life on the Continent, though we do not consider that their teaching should mainly centre round the technical terms of commerce, as is done in the foreign "commercial bureaux" alluded to above.

We are of opinion that what it is most important for the pupil to gain is a thorough all-round acquaintance with at least two foreign languages, a knowledge which places him *au courant* with all the phases of life of the day. Familiarity with the terms of the commercial and business world would necessarily be included in such a wide knowledge, and some amount of specialisation in this branch would perhaps usefully in the last year be taken as an alternative to a course in elementary economics and the rudiments of law. Reality might well be imparted to this more specialised branch of study by visits to commercial museums, commercial warehouses and similar places, under the guidance of the language teacher, who would find the assistance of such object lessons invaluable.

The difference between the kind of teaching sketched above and the ordinary teaching of modern languages, as it at present exists, would be mainly due to the "objective" or "aim" of the school, viz., the training of students for commercial life. This aim, as already pointed out, is in our opinion perfectly consistent with a high educational standard; but it must be a standard with a definite stamp of its own. No outside examinations of a merely literary type should be allowed to control the teaching. The complete mastery of the living language should be the dominant note throughout; and the more complete and real the mastery that is attained, the more thorough will be the training imparted. Except as incidental and necessary to such mastery of the living language, or to the study of economics, as referred to below, we are of opinion that specialised commercial work, such as that conducted in the "commercial bureaux" and other departments of foreign commercial schools, is undesirable as tending to cramp the development of the mind and tie it down prematurely to the details of business life (see the close of Sir Bernhard Samuelson's evidence, Appendix I., page 22).

Instead of any mechanical anticipation of the realities of business operations, the time of the student should be devoted to studying both British and foreign history and geography with special reference to the growth and organisation of international trade. With regard to the teaching of geography in schools, we received a communication from the Royal Geographical Society proposing the establishment of a school of geography, but no action has been taken in the matter.

Some time should also be given to political economy and to acquiring a knowledge of the principles of international and commercial law, though these subjects could only be fully dealt with in the institution of university rank.

Throughout the course mathematics should form an important item in the curriculum, and a thorough foundation should thus be laid for the subsequent study of statistics. At the same time a graduated course in experimental science would serve to develop the pupils' powers of observation and cultivate powers of exact reasoning. (Interesting suggestions with regard to curricula are given in Professor Hewins' evidence, Appendix I., pages 2 and 3.)

The only examination towards which a school of this type should lead up should be the examination for admission to the higher institution where further specialised instruction would be given in connection with the University. Such an examination should be largely oral and should be so framed as to fetter the teaching of the school as little as possible. It would be well for such examination to be a leaving examination like the German *Abiturienten Examen* or the French *Baccalauréat*. As in the case of the second grade school, this examination would on the one hand qualify for admission to the higher institution, and on the other qualify the successful candidate to receive a certificate. This certificate might be styled the "higher commercial certificate," that awarded from the second grade school being termed the "lower commercial certificate." The London Chamber of Commerce has already done much towards establishing such certificates, and would no doubt be largely responsible for granting them in the future. It would also be able to use its influence to secure a proper estimation of such certificates in the commercial world, as it does at the present moment in the case of those which it now issues.

How to develop commercial education in the schools.

A scheme of commercial education, as described above, may be introduced either by the establishment of entirely new schools or by the development of commercial "sides" in existing

schools. We consider that the latter is the preferable policy. Among the most important points to secure for bringing about such development would be—

- (a) The co-operation and interest of commercial men in the school so as to insure that the school should be in touch with the commercial world; (b) the training of teachers, especially modern language teachers, to carry out the instruction on the lines above indicated.
- (a) The co-operation of commercial men could best be secured by giving seats upon the governing body to representatives of the Chamber of Commerce and to others engaged in actual business. At Antwerp, participation of men of this type in the direction of the higher school of Commerce is considered to be one of the principal reasons of its success (see Vol. III. of the Special Reports of Education Department, page 558). Without the infusion of a strong element from the world of commerce, a school naturally tends to become too academic.

On this point we have received strong testimony from numerous sources. Mr. Brereton (page 11) points out that in Paris nearly all the leading commercial men are in favour of the high school of commerce, and (page 12) that they have supported such schools munificently. Mr. Bradgate (page 35) gives an interesting instance of the way in which a London business bases the promotion of its staff on educational efficiency; and Dr. Wormell (page 16) points out how much English merchants could do if they would take account of educational qualifications in making appointments. "If by any means" he says, "we could make more of the achievements of the boys in the schools, and cause merchants, bankers and others, when seeking clerks, to take into account the boys' previous careers, it would help us in two ways. It would convince a boy it was worth while to do what he had to do, and it would give him a stimulus to use the last year or two of his school life for the purpose of getting up commercial matters. I think the London County Council and the London Chamber of Commerce might do much to cause an improvement."

(b) The training of teachers is recognised by many of our witnesses as a subject of great importance. Professor Hewins (page 2) speaks of the extreme difficulty of finding teachers for higher commercial work. Sir Bernhard Samuelson (page 22) considers that the training of teachers would be the main function of a higher commercial school, and Mr. Brigg (page 23) states that the lack of supply of suitable teachers in commercial subjects has been the greatest difficulty in the West Riding of Yorkshire, where an interesting scheme of commercial teaching is being organised. In the subject of modern languages it is of especial importance that a thorough training of teachers should be established to ensure a due supply of language masters for the types of schools described above. This training might partially be secured by the offering of travelling scholarships tenable for two or three years on the Continent, the holders being required to mix in the commercial world, and also to study the methods of foreign commercial teaching. We have already made a beginning in this direction by offering, with the approval of the Board, four such scholarships tenable for two terms in foreign commercial institutes. We think that it might be advisable for the Board, for some time to come, to make a practice of awarding one or more of such scholarships in connection with its annual award of senior county scholarships.

Supply of students.

With regard to the supply of students for the commercial "sides" of both second grade and first grade schools, we consider that a certain number of intermediate county scholars, who expressed a desire to enter on a commercial rather than an industrial career, should be encouraged to hold their scholarships on the commercial side; this was suggested by Mr. Kahn in his evidence printed on page 15.

As regards the school for boys leaving at the age of sixteen, it is probable that there will be no difficulty whatever in obtaining students for the commercial side, but the development of the higher commercial school will, no doubt, be a matter requiring time. As will be gathered from the evidence printed in Appendix I., it is still the feeling of a large section of the commercial community that a boy requires only to have gained at school the power to write well and a good knowledge of arithmetic, with shorthand and typewriting as accessories for certain posts. Given this primary knowledge and such military discipline as boys acquire in Spurgeon's Orphanage or the Orphan Working School, the commercial houses are prepared to fashion their own servants; in fact the heads of these houses demand tools which they can direct and use, but from which they require only that degree of intelligence which is expected from the private soldier. Commercial men in this country do not yet appear to recognise that a sufficiently good training in a higher commercial school will enable an officer to be of some service to his principal by making suggestions with regard to new departures or the conduct of difficult business requiring an extensive knowledge of foreign systems. It may readily be admitted that there are businesses, and very large businesses, in London in which discipline and the faithful carrying out of routine duties constitute nearly the whole requirements both of officers and men. Their position is very much that of the British army at home without any expectation of ever being called to take part in active service, a position in which smartness in drill and appearance are the chief qualifications which attract favourable attention. There are other houses, however, whose business is of a very different character; they may be compared to the British army in the Soudan; discipline is, of course, still essential; pipe-clay is of third-rate importance; but intelligence, forethought, power of organisation under absolutely novel conditions, and, above all, knowledge of the ways and habits of the enemy, are of the highest value. It is as training for this work that the higher commercial school is required, and in organising this training too much attention must not be given to the evidence of the officer whose service has never extended beyond the dress parade.

It is easily understood that the training of the barrack school produces boys, who on entering large business houses are prepared to fall into their duties with the minimum amount of trouble caused to the responsible heads of departments, but that the training of these boys is insufficient to

meet modern requirements is sufficiently shown by the fact that but a very small percentage of British commercial travellers are able to offer to a foreign customer quotations for British goods in the language, weight (or measure) and currency of the country, including all costs of carriage, customs or other duties, and delivery on the foreign customer's premises—what, in fact, is commonly known as “spot value”; and there are in this country commercial houses who are making a large profit by the simple process of re-packing goods according to the metric system and quoting in European countries according to local custom.

It is noteworthy that the merchants who show the most appreciation of the need for commercial education, as indicated in the interviews reported in Appendix II., are those engaged in foreign and shipping business, such as Mr. Alfred Smith (pages 32, 33) and Mr. Capel (page 31). The latter states that his firm has been driven to employ foreigners, as “it was the rarest thing possible to have an application from an Englishman who professed to be able to correspond in any language but his own.” The former strongly approves of commercial schools in fact of “anything that would universalise or continentalise the English business man's mind.”

In connection with the development of a commercial school of the first grade in the near future, it should be mentioned that the Governing Body of the City of London College have received from the Central Governing Body of the City Parochial Charities an offer of £500 a year conditionally upon their establishing a higher commercial school for day students. We have already reported this fact to the Board, and have received from the Board authority to take such steps as we think fit to devise a plan for the establishment of such a school. But as the question is one of great importance, and as the funds at present available are quite inadequate for the purpose, we have not as yet taken any direct action in the matter. It is not improbable that an existing first grade school may find it possible to create a commercial “side” fulfilling the conditions indicated, and thus enable an experiment to be tried without the foundation of an entirely new school. Eventually five or six such schools or “sides” should be provided in London.

III.—*Institutions of university rank.*

It is in this grade of commercial education that England has hitherto most conspicuously fallen behind the provision made in various continental countries, as well as in the United States. When the Technical Education Board began its work the only provision of anything approaching to commercial education of this grade consisted of one or two courses in abstract economics, commercial law, &c., at University and King's Colleges, which did not succeed in attracting many persons designed for or engaged in commercial pursuits. It was seriously doubted whether any demand existed for more teaching of this grade. It was pointed out that although, at Paris and elsewhere, institutions giving instruction of university type in economics and commercial subjects attracted hundreds of pupils, these pupils had various special attractions, such as the privilege of a reduced term of military service or a preference for consular appointments—which a London institution could not offer. The founding in 1895 of the London School of Economics and Political Science, enabled the experiment to be tried. The Board took advantage of the establishment of this institution to get started, with the cordial co-operation and assistance of the London Chamber of Commerce, systematic courses in subjects of higher commercial education. The school in the session 1897-8 had 378 students, drawn mainly from the class of young men designed for or already engaged in commercial life, including especially banking, shipping and foreign trading, together with railway administration and the national and municipal civil service.

The curriculum of the school, full particulars of which are given in Appendix V. (pages 79-83), comprises economics and statistics, in the form of concrete description of the organisation of the modern business world at home and abroad, commercial history and geography, railway administration, banking and currency, commercial law, &c. The school has attracted considerable attention on the Continent, and has been repeatedly enquired into by foreign governments and described in German educational periodicals, whilst its organisation and curriculum have, it is said, been copied by more than one of the recently established institutions in Germany and Belgium.

But however satisfactory may have been the London School of Economics regarded as an initial experiment in higher commercial education, its work will have to be considerably widened and extended before the provision of commercial education of this grade for such a city as London can be accepted as adequate.

We regard it as important that commercial education of this high grade should form an integral part of the re-constituted London University, and that it should be distinctly recognised, as constituting a separate faculty or department of a faculty.* Such university recognition is essential in our view both to give *status* to the higher branches of commercial education and to increase their attractiveness to students of the highest mental capacity. But it is also of the utmost importance to commercial education itself, as tending to insure a high intellectual standard, and to counteract any tendency to an unduly narrow utilitarianism.

As expressed in the prospectus of the London School of Economics (see page 79), by “Higher Commercial Education” is meant “a system of higher education which stands in the same relation to the life and calling of the manufacturer, the merchant, and other men of business, as the medical schools of the Universities to that of the doctor—a system, that is, which provides a scientific training in the structure and organisation of modern industry and commerce, and the general causes and criteria of prosperity, as they are illustrated or explained in the policy and the experience of the British Empire and foreign countries.”

* It might be styled the Faculty of “Economic and Commercial Science”; or be included in the Arts Faculty as a distinct Sub-faculty of Economic and Commercial Science.

Students of university rank would not be called upon to exercise themselves in practical commercial operations, as is the case in some of the foreign higher commercial schools. Such work appears to us outside the range of a university, and not worthy of imitation in a school of the university. The university course would deal with the subjects taught in the higher secondary schools, and with other kindred subjects, with the view of leading the students to investigate their highest branches and their underlying principles.

The organisation of those studies should be framed under the idea that commercial and industrial life rest upon a complex series of laws, which it is the duty of the trained student to investigate. Leaders of economic thought are often the most real pioneers of commerce, and no commercial supremacy can be permanent which does not rest upon sound economic laws. It would therefore be the function of the new economic and commercial faculty of the university to lay the foundations of commercial teaching on sound principles, and to set the tone to all the schools where such teaching would be given.

It would also have the direct training of the future leaders of commerce and industry, and of the national and municipal civil servants and consular attachés, who, it is hoped, do much to guide the commercial policy of the empire. It would not be necessary that students in the commercial "school" of the university should have passed through one of the higher commercial secondary schools described above. For many of the branches of study pursued in the university school, the best possible preparation is a thorough training in languages and the higher mathematics, but for those university students who are destined to become heads of commercial houses, the preliminary training of the secondary commercial school will be invaluable.

It should be added that the existence of one or more institutions of university rank, devoted to the highest aspects of commercial study, will no doubt do much to give dignity to all branches of commercial work. This has already been found to be the case at Antwerp and Leipzig (see Dr. Wormell's evidence, page 17).

Experience shows that commercial education of this high grade requires to be differentiated according to the occupations for which its students are preparing, or in which they are engaged. Thus while a certain measure of economic and statistical training, of knowledge of commercial history, geography, and law, and of acquaintance with foreign languages, must be given to all students at this stage, the different groups require, in addition, highly specialised teaching. We do not feel convinced that the differentiation of these groups, and the exact curriculum required for each, have yet been definitely ascertained; but we think it is clear that in London the following groups must certainly be recognised and separately provided for:—

(a) *Banking*.—Those engaged in banking (who number in London about 6,500) require an intimate knowledge of the economics of banking and currency, the foreign exchanges, international values, etc.; banking law and banking systems in different countries, with their history; together with the higher problems of taxation and finance. The examination established by the Institute of Bankers indicates, to some extent, both the nature of the curriculum which the leaders of the banking community consider to be suitable, and their belief in its practical value.

(b) *Foreign trade*.—Those engaged in import or export trade, who must, in London, number many thousands, appear to require, besides some general training in economics (especially in international values and foreign exchanges), a special knowledge of the actual condition of foreign countries, including their economic and industrial organisation, their products and manufactures, their imports and exports, their currency, weights and measures, their revenue systems and customs laws, their language, their law and their history. Each country would require to be treated separately, by teachers of high specialist knowledge. Valuable courses of this kind are given in several of the higher commercial institutions on the Continent, and they form a leading part of the celebrated *Ecole Libre des Sciences Politiques*, which has for over twenty years done so much for education in Paris. No high teaching of this kind can be obtained in this country at present, though a beginning has been made at the London School of Economics.

(c) *Shipping*.—London is the greatest port in the world, but it is at present practically impossible for the thousands employed in connection with ship-owning, ship-chartering, and ship-managing to obtain any systematic teaching of English and foreign customs, tariffs, and harbour systems, maritime law, the course of international trade, and the great movements of industry in different countries. To this should be added a knowledge of the conditions of foreign countries and of the economics of international trade as nearly as possible equal to that of the merchant himself.*

(d) *Railway administration*.—It must not be overlooked that the railway service employs in London alone about 25,000 persons, the higher ranks of whom require specialised training of advanced type. The economics of railway administration, including railway rates and railway statistical methods, railway history, railway law, railway administration in other countries, and railway finance, all form part of university instruction in the United States. These subjects are at present taught in the London School of Economics, and that they are both of practical value, and highly appreciated by those concerned, may be judged from the fact that two of the leading companies regularly pay the fees for such of their employees as are willing to attend. It may, we trust, be found possible to enlist the co-operation of the principal London railway companies in establishing a fully-equipped department on these lines.

(e) *Insurance*.—There are in London over 6,000 persons employed in connection with life, fire, marine, and other insurance, with whom may be classed the whole range of accountants, actuaries, valuers, and, perhaps, surveyors. The examinations instituted by the various professional associations in these occupations to some extent indicate the curriculum required. This is naturally

* Although London supplies a large contingent of officers to the mercantile marine, and is the occasional home of probably a majority of the whole service, there is at present no public provision for the education of masters and mates. This appears to require separate consideration.

largely mathematical in character, requiring in the higher grades a special knowledge of probabilities, "the logic of chance," &c. But a training in statistics and statistical methods is no less important; whilst insurance law and insurance practice in different countries should also be added.

(f) *Civil Service*, national and municipal.—This forms no small proportion of the great army of "clerks" in London, and cannot therefore be omitted from any survey of the classes to be provided for. The total number of persons employed in the clerical establishments of Government departments and local governing bodies in London exceeds 40,000. This great class, all styled "clerks," includes administrative officers of every rank, many of whom are charged with duties of the greatest importance. Besides a good general education, such administrators should be equipped with a sound knowledge of economics, including taxation and finance; they require thorough training in statistical methods; they ought to know the organisation of English administration in all departments, with its history; and it would be a great advantage if they added to this some acquaintance with the history, present organisation, and results of public administration in other countries.

Along with economic science, statistics, commercial and industrial history, geography and law, and the more specialised subjects applicable to his particular occupation, the higher commercial student at this grade would naturally continue also his study of foreign languages. Whether it is desirable to provide for this advanced teaching of foreign languages in the same institution as that dealing with the other subjects is not clear. It is a point on which we believe the practice of foreign countries differs, and we have had in England too little experience of higher commercial education to enable a decision to be come to with any confidence. It is clear that the law and the economic institutions, the commercial history and geography of the principal foreign countries must be dealt with, and there is often considerable advantage in obtaining the services of foreign lecturers and specialists, who can most conveniently teach in their own tongues. On the other hand, the actual teaching of foreign languages, especially at the advanced stage, is an art in itself, and may perhaps be both more efficiently done, and done with greater advantage to the general cultivation of the student, if it is organised as a separate department, which would naturally form part of a faculty of literature and philology.

IV.—*Evening schools and classes.*

The work of evening schools and classes would be mainly supplementary to the course of day commercial instruction sketched above. Under each of the divisions of primary, secondary and university teaching, including post-graduate work, evening work would be required for the benefit of those who are unable to give up their days to study. It is important for the community that the ladder of commercial success should be accessible to all, and it will be through evening classes that the means of rising will be most readily provided. So important is a well-organised system of evening instruction that some are disposed to regard it as the only type of commercial instruction that need be provided. We cannot share this view; for we feel that no amount of supplementary work acquired in later life in spare time can fully make up for the lack of a thorough continuous training given all through the period of youth. Several of the business men whose views we have obtained point out that it is very difficult for a youth by evening work alone to obtain the same mastery of a subject as by continuous day study.

We think, however, that the two systems most usefully supplement one another. The office-boy who commences work at 14 and the clerk who begins work a year or two later should be able to find opportunities in evening courses to supplement their business training by continuous study, and so to qualify themselves for higher positions. Much is already being done in this direction in the evening continuation schools, polytechnics and other institutions and classes, full particulars as to which are given in Appendix V., pages 72-77. At present, however, the work is mainly confined to certain specialised subjects, such as shorthand, type-writing, book-keeping and French. The range of subjects requires to be widened and the instruction in different institutions requires to be co-ordinated and directed not to the passing of outside examinations but to the actual requirements of commercial life.

On page 73 there will be found particulars relating to the number of class entries in commercial subjects at Battersea Polytechnic for the autumn term of 1897. It will there be seen that of the number of students who attend the classes in modern languages only a very small percentage take the examination of the Society of Arts in those subjects. Although there is considerable variation between the different polytechnics, they all closely resemble Battersea in this respect, that, while a very considerable percentage of their students in science enter for the examinations of the Science and Art Department, a very small percentage only of the students in modern languages take the examinations of the Society of Arts. This is a matter which, we understand, has already occupied the attention of the London Polytechnic Council, but we have not received evidence to show whether the cause is due to the students setting too little value on the certificate of the Society of Arts, to the examination of the Society of Arts following other lines than those adopted in the polytechnic classes, to the majority of the students attending the classes with a view to passing the Civil Service or other examinations for which the certificate of the Society of Arts would have no value, or to the teaching in the institutions not reaching the standard required by the Society of Arts examinations.

General.

The new dignity that will be added to commercial subjects by their inclusion in a university scheme, a larger provision of competent teachers intimately acquainted with the needs of commercial life, and the possible foundation of a scheme for commercial certificates granted upon evening studies, as well as upon day studies, might assist materially in bringing about the desired improvements in commercial education, of which a general description has been given in the above paragraphs.

On the last of these points, as on many others, much may be looked for from co-operation between

educational authorities and bodies such as the London Chamber of Commerce. Half the difficulties of the situation would be solved if the schools were brought into close touch with business men and business men into close touch with the schools. The conference held last summer in the Guildhall gave hopeful signs of the possibility of such correlation, and it is to be hoped that in the near future the two forces will be seen working together in developing a thorough and practical educational scheme.

Specific recommendations.

In conclusion, we submit to the Board the following recommendations which we have adopted as summing up what appear to us to be the results of our inquiry—

(a) That further and better provision for commercial education is urgently required in London; and that it should be the object of the Technical Education Board, so far as its resources permit, and so far as is consistent with due regard to other claims, to assist in supplying this need.

(b) That the commercial education required is of several distinct grades, and must be adapted to the different needs of many distinct groups.

(c) That, to meet the needs of those who enter business offices about the age of 14, day continuation schools are required, which should give a two years' course of training specially adapted for commercial life; and that some of the Board's junior county scholarships should be tenable at such schools.

(d) That it is desirable that there should be in many of the public secondary day schools in London of the second grade departments devoting themselves primarily and avowedly to the preparation for commercial life of boys who will leave school at 16; that in such departments, while a good general education should be given, special attention should be devoted to modern languages in such a way as to turn out pupils able to speak and correspond fluently in at least two modern languages; to the teaching of arithmetic so as to secure perfect facility in the use of the metric system; and to ensuring a good general acquaintance with the commercial geography of foreign countries.

(e) That negotiations be entered into with a view to the development of such a department in one or more of the existing public secondary schools of the second grade.

(f) That it is desirable that there should be provided in London in at least one public secondary day school of the first grade a department devoting itself primarily and avowedly to the preparation for business life of boys leaving school at 18 or 19; that the curriculum of such department should not lead up to a classical or mathematical career at the Universities, but should qualify its pupils either to enter the higher ranks of commercial life or to pursue an advanced course of study in the economic and commercial faculty of the new London University, or in other institutions of higher commercial education.

(g) That negotiations be entered into with a view to the development of such a department in one or more of the existing public secondary schools of the first grade.

(h) That it is desirable that a certain number of intermediate county scholars should hold their scholarships in the commercial departments of second grade and first grade schools, when such departments have been established.

(i) That it is desirable that full and express recognition should be given to higher commercial education in the re-organisation of London University; and that it be referred to the special Sub-Committee of the Board, dealing with the University, to consider whether it would not be wise to urge upon the Commissioners the establishment, from the first, of a separate faculty of economic and commercial science; the provision of endowed professorships in the various subjects of higher commercial education; and such arrangements as will facilitate and encourage those designed for or engaged in the higher ranks of business to take advantage of university teaching.

(j) That it is desirable that a certain number of senior county scholars should go through a university course in subjects of higher commercial education; and that, in addition, travelling scholarships be offered to enable teachers of some experience to study in higher commercial institutions abroad, in order to qualify themselves as teachers of commercial subjects.

(k) That efforts be made by the Board to extend, improve and co-ordinate the teaching of commercial subjects in evening classes, especially in such departments as foreign languages, the metric system of weights and measures, economics, commercial history and geography, shorthand and book-keeping; and that it be referred to the Polytechnics sub-Committee to consider the desirability of obtaining a special report upon the extent, quality and results of the classes in these subjects at the several polytechnics.

(l) That special efforts be made by the Board to obtain the co-operation of representatives of different branches of the business world in carrying out this programme; and that negotiations be entered into with the London Chamber of Commerce, the Institute of Bankers, the Institute of Actuaries and other associations holding examinations in commercial subjects, with a view to securing their co-operation, especially in obtaining the recognition by commercial men of leaving certificates, and in securing a closer union between the teaching and examining bodies.

T. A. ORGAN,

Chairman.

APPENDICES.

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APPENDIX I.

Evidence given before the Special Sub-Committee on Commercial Education.

4th May, 1898.

Mr. F. Debenham.

Mr. F. Debenham, a member of the sub-committee and a delegate of the London Chamber of Commerce at the recent International Conference on Commercial Education at Antwerp, said that the general impression of the English members was that very little had been learned at the Conference. The attendance was large. The delegates used to meet at an hotel in the evening for the interchange of views. The general conclusion at which the majority arrived was that the engrafting of a practical commercial training with the present system of secondary education was not possible in England. They agreed that boys up to the age of 16 should have a certain bias in the direction of special commercial subjects, say, the decimal system of arithmetic and commercial geography. The English representatives were business men, who felt that the real commercial school for educating boys was business itself. A boy who gets his commercial education in business is far better equipped than one at college. There was almost unanimity on these points. It was felt that the Conference would be the means of attracting boys to Antwerp. Professor Layton said that the boys who at present go are not well prepared to receive the instruction which the institution offers. Mr. Debenham was of opinion that the Antwerp School was a very good model, but that such a school was not required in England. Sons of merchants might perhaps benefit more by a higher commercial school than they now do by a college. There was unanimity with regard to the desirability of making the primary and secondary schools more suitable for commercial life. The English members did not attach much importance to a higher commercial school. The modern side of a secondary school might be conducted on commercial lines with advantage. If a higher commercial school were established, a two years' course of higher teaching for ordinary commercial men would be sufficient, but for students seeking consular posts a three years' course would be necessary.

Mr. Debenham remarked that with regard to boys of 14 years of age there appeared to be in Antwerp no systematic or special education leading up to the education provided at the Institut Supérieur de Commerce.

Professor W. A. S. Hewins.

Prof. HEWINS, the director of the London School of Economics, said that the school, which was opened in October, 1895, had been very successful.*

Mr. ORGAN—What is your idea as to what a scheme of commercial education should contain?—First it is necessary to know what commercial education means. Judging from the experience we have had at the school, it is most important not to launch any general commercial programme framed to meet the needs of some hypothetical "clerk" or "business man." The students should be split up into different groups, classified according to the trades or professions in which they are engaged, and after consultation with employers or heads of departments, who may be presumed to know what their assistants require, special curricula, suitable for the different groups, should be arranged. The organisation of commercial education therefore involves the organisation of the public, the clerks, business men, &c., for whom it is intended, and then the arrangement of curricula suitable for each group.

Mr. ORGAN—You are referring only to those in business?—Yes.

Mr. EASTERBROOK—Do you mean training in the higher branches of commercial education?—I think the principle of organisation I have described applies to commercial education generally. Different groups of merchants and clerks require different training.

Mr. EASTERBROOK—It applies equally to primary, secondary or higher education?—Yes, it applies to all three, but we shall be able to obtain a clearer idea of the courses of training required in the lower grades if we speak of higher commercial education first.

Mr. STANLEY—Do you mean the further education of those already in business?—Yes, by means of evening classes.

Mr. WALLAS—Do you think that if a day commercial school were established any advantage would be taken of it?—Very little indeed under present conditions.

Mr. WALLAS—The institution existing in Antwerp would be of little use in London?—Yes, I daresay you might get some students, but not a sufficient number to justify the expenditure incurred. It is certainly a question to be considered whether employers could be induced to allow their subordinates to attend during the day.

Mr. WALLAS—Have you any means of knowing whether there would be any demand for young men of 17 or 18, who had studied at a day commercial school for two or three years before entering business?—I should say that under present conditions there would be very little demand for them. Some of the railway companies appear to be anxious to get hold of well educated young men.

Sir P. MAGNUS—In continuation of the question with regard to the possibilities of higher day schools succeeding in London, can you say at all why it is that such institutions do succeed in some parts of the Continent, and why you think they would fail in London? At Paris and Antwerp, for instance, there are good schools as regards the number of students in attendance?—The principal reason is probably that on the Continent young men enter business at a later age than in England. There is also considerable difference of opinion between England and the Continent as to the value of such training. Foreign merchants seem to consider two years' additional education a distinct gain.

Sir P. MAGNUS—Would not English bankers and merchants think the same?—I think that in time they might be persuaded to attach greater importance to a preliminary training. I am thinking of the present organisation of business in London. If you want to make the scheme successful, you must win the co-operation of the employers.

* See the detailed syllabus for the two years' "Higher Commercial Course" at this institution, Appendix V., pages 79-83.

Missing Page

order that they might enter your school prepared to go on with the work? What would you require of a boy from 15 to 17 years of age?—It is desirable that he should have a knowledge of English history, including constitutional history; a general descriptive knowledge of the English constitution; a knowledge of physical, political, and commercial geography, mathematics (including algebra up to progressions, trigonometry up to the solution of triangles, and Euclid); a knowledge of one foreign language sufficient to enable him to read books in that language, and some acquaintance with experimental science. He might reasonably be expected to know the meaning of such terms as wealth, capital, labour, exchange, &c. But I do not think it is possible or desirable to teach boys of 15 years of age the higher branches of political economy.

Mr. STANLEY—Would you require him to show ability in drawing?—It would be desirable but not essential. If a boy could draw to scale it would be an advantage.

Mr. ORGAN—What subjects would you teach students who had gone through such a course as you have described?—During their first year they would attend classes on historical and descriptive economics, the meaning and use of terms, and elementary statistics, and certain courses of lectures on special subjects, chosen with a view to their business or profession. These courses of lectures are arranged in various departments, such as banking and currency, commercial geography, foreign trade, commercial law, &c. During their second year the students would attend advanced courses, in which they would specialise on those subjects most likely to be useful to them.

Mr. EASTERBROOK—What do you mean by commercial geography?—The science which investigates the influence of geographical causes on the distribution of industry, trade and commerce.

Rev. C. G. GULL—Would you include rivers that have no shipping?—Certainly.

Rev. C. G. GULL—The difficulty in procuring good clerks is said to be due to the inefficient teaching provided in the schools. If the existing curriculum were properly worked out, this difficulty would probably be surmounted?—There is some truth in your suggestion.

Mr. ORGAN—Does not the curriculum of the schools vary?—Yes.

Mr. STANLEY—Is it necessary for teachers to study commercial geography before teaching the subject?—Yes.

Mr. STANLEY—Would not you require a boy of 17 to show some knowledge of English composition?—Unless he had some power of lucid expression he would find his work at the school very difficult.

Mr. STANLEY—Have you noticed any tendency to raise the age for taking clerks into business?—In the absence of statistics on the subject I could not express an opinion.

Rev. C. G. GULL believed that there was a tendency to induce students to remain at school until they reached 16½ years of age.

Mr. EASTERBROOK believed that the good firms were not taking clerks into business at as early an age as formerly, but the inferior firms endeavoured to get them as young as possible.

Rev. C. G. GULL said that in his own school he noticed that the age of leaving had been increased by twelve or fifteen months.

18th May, 1898.

Professor Layton.

Mr. WM. LAYTON, professor of English at the Institut Supérieur de Commerce, Antwerp, said that in commercial education the first step of importance consisted in the careful preparation of the boys in elementary schools and in the junior departments of secondary schools (see note A). He said that the members who attended the late congress at Antwerp were opposed to any interference with the curriculum of any primary school. All the authorities he consulted on the Continent were against any specialisation in commercial education in the elementary schools (see note B).

Mr. EASTERBROOK—What do you mean by the junior departments of secondary schools?—This definition is arrived at by taking into account age and previous attainments, but I admit that conclusions arrived at in this way are not always to be relied upon.

Mr. LAYTON continuing—In Belgium, where the education is compulsory and is under the direct control of the Government, there is not the class distinction to deal with as in this country. A primary school in Belgium would compare with an elementary school in England, but there is no stigma whatever attached to children attending the primary schools—the counterpart of the English Board schools. No child can be admitted from the elementary school to the Athénée, or Belgian secondary school, until he or she reaches the age of eleven. The entrance examination comprises grammar, French grammar, and, for children coming from the parts of the country where the language is spoken, Flemish grammar, elements of the geography of Belgium, four elementary rules of arithmetic, with knowledge of decimal system and weights and measures, and reading and writing well from dictation. An examination in these subjects is necessary for a boy wishing to enter an Athénée, or Belgian higher school.

Rev. C. G. GULL—What standard would this knowledge represent in the elementary schools of London?—I cannot say. It is not possible to institute a comparison between the Belgian high schools and the London secondary schools. To these latter no entrance examination is necessary, whereas to the Belgian schools, as stated above, it is so.

Mr. LAYTON, continuing—For girls there is a very good school at Antwerp, the Ecole Professionnelle de Jeunes Filles, and similar schools exist in other large centres of population in Belgium. That of Antwerp may be taken as the type. The children are not allowed to enter under twelve years of age, and they must possess a knowledge of the ordinary subjects of secondary education. Girls are expected at twelve years of age to know as much as boys of eleven. The course of instruction lasts for two years. The curriculum comprises French, Flemish, English, German, arithmetic, book-keeping, geography, natural science, health, dressmaking and other branches of manual instruction, and singing (see note C). I had an interview with the headmistress of this school recently, and ascertained that this curriculum was absolutely followed. I gathered that the girls were not so well prepared as a rule as boys (see note D). In entering the Athénée the boys are placed for the purposes of study on the classical or modern side, according to the wish of the parent. The instruction on the classical side corresponds to

that given in Christ's Hospital School and Merchant Taylors' School. The education is intended to fit the boys for the law, the notarial service, medicine, the chemical industries, or for the teaching profession.

The modern side is divided into two parts: the first provides the training required by ordinary clerks and business men; the second or higher section enables students to proceed to the Institut Supérieur de Commerce or any other institute of higher education in the country. It is a rule at the Institut de Commerce that a student coming from the Athénée shall not be admitted unless he has fully completed his studies at the Athénée Royal d'Anvers.

Rev. C. G. GULL—Does any specialisation take place in mathematics before a lad enters the Institute of Commerce?—No. The mathematics required would be similar to that for the matriculation of London University.

Mr. EASTERBROOK—At what age do they leave the Athénée?—Seventeen. There is no definite rule as to the age for admission to the Institut de Commerce, but young men under 17 are seldom able to derive much benefit from the instruction given at the institute.

Mr. EASTERBROOK—When talking of junior departments of secondary schools do you mean to include boys from 11 to 17?—No, from 11 years of age until they go either to the classical or modern side, at, say, 14.

Mr. BOND—Is there any specialisation between the ages of 11 and 14?—The instruction is intended to enable the boys to take positions as clerks or business men. They are expected to acquire an ordinary knowledge of the dealings of commercial travellers, procedure for the recovery of debt at the lower courts corresponding to the English county courts, and bills of exchange.

Mr. BOND—What do the boys do when they get into the Athénée?—They are all educated together up to a certain standard, say up to 14 years of age, the education being specially suitable for those going into commercial life.

Dr. GARNETT—Can a boy of 14 draw up a promissory note, and is he expected to write shorthand?—He can draw a note, but cannot as a rule write shorthand (see note E).

Dr. GARNETT—Is not that opposed to the decision arrived at at the Conference, *i.e.*, that the elementary schools should not teach commercial subjects at all?—Yes, nor is it approved by the Government, but the teaching is carried on to a slight extent. The object is to turn out better clerks between the ages of 14 and 16.

Rev. C. G. GULL—Have you two sides in the junior department?—No.

Rev. C. G. GULL—Up to 14 do the boys take the same work on both classical and modern sides?—Yes, the curriculum is the same for all. The boys go on the classical side at 12 or 13 and lower, and on the modern side at 15 or 16. The boys who enter the lower modern side are taught sufficient to enable them to take ordinary clerkships. The time for leaving is 17.

Dr. GARNETT—The boys who are training to become clerks do not leave before 13?—No.

Mr. EASTERBROOK—Are there any students in the junior school from 11 to 13?—No.

Mr. EASTERBROOK—In what subjects is the training better than in English schools?—It is more thorough; sharper boys are turned out.

Mr. EASTERBROOK—Is it the subject or the manner of teaching it which makes them sharper?—The manner of teaching, *e.g.*, the arithmetical problems bear some relation to everyday life.

Mr. ORGAN—Have you taught in these schools?—No, I have been engaged entirely at the institute, but I have been a member of the examining board, and am therefore able to judge of the character of the work carried on in the schools.

Mr. ORGAN—Are you speaking of secondary schools?—No, the elementary schools. The école primaire corresponds to the English elementary school, and the Athénée to our secondary schools (see note F).

Mr. ORGAN—At 16 do the majority go into commercial life and finish their education, or do they come to your institute?—The majority come to the institute.

Mr. ORGAN—Is there any provision for young men engaged during the day?—Yes, every municipality in Belgium organises continuation schools in which the instruction is free. The instruction is mostly confined to languages and arithmetic; the higher sciences, as political economy, &c., are not touched upon.

Mr. ORGAN—The lads enter your institute at 17?—Yes. There is a faculty also established at Liège and Brussels for consular work. The Government has promised posts to some of those who have graduated at Brussels and Liège.

Mr. ORGAN—At these institutes they train for consular work principally?—Yes, the Government insists upon a high standard of attainments for the consular appointments.

Mr. ORGAN—What is your exact position in the institute itself?—Professor of English, taking the lower section in the first year, the higher section in the second year, and students for consular work in the third year. I am also responsible for the correspondence and general transactions conducted in English.

Mr. WALLAS—How many students have you?—Between 200 and 300.

Mr. WALLAS—How long is the full course?—Three years.

Mr. WALLAS—Do nearly all the students take the full course?—Nearly every one. The course commences with an examination. The matriculation examination is very difficult, so that the professors begin what is called a private course of teaching from April to July, in order to bring under the notice of candidates for admission, in the following October, the special points to which their attention should be directed (see note G).

Mr. EASTERBROOK—Do the students have to pay for this preliminary coaching?—The students are charged very moderate fees. For instance, between April and July, 100 francs; for the first year's course, 250 francs; for the second year's course, 275 francs. The whole of these fees are given to the professors as honoraria. The Government pays all the expenses in connection with the professors' chairs, and the municipality undertakes the equipment and maintenance of the buildings.

At the end of the second year the students pass the examination for degrees. Two years ago the Government, feeling that something more had to be done, created a third year course for preparation for the consular service and a higher mercantile career.

Rev. C. G. GULL—What proportion go out at the end of the two years' course?—As the extension has been in force for a short time only, it is hardly possible to answer without conveying a wrong impression of the utility of the third year (see note G).

Mr. WALLAS—At what time do the classes commence?—At 7 a.m. in summer and 8 a.m. in winter.

Mr. WALLAS—Are these 300 students giving their full time to the school?—Yes, but a few students come from 8 to 9 and 2 to 3 before commencing business in the morning and the afternoon. The fee charged in their case is 24s. These are additional to the 300, but work with them.

Rev. C. G. GULL—In other continental cities you say the age of entering the higher institutes is 16, Paris, for instance. Is that, in your opinion, better than 17?—I do not think it is better.

Rev. C. G. GULL—Your opinion is that for higher commercial instruction 17 is the lowest?—Yes; I prefer 18.

Mr. ORGAN—How many students have you working in the third year's course?—About 26.

Mr. ORGAN—Is the third year's course developing?—Yes.

Mr. ORGAN—How many students were there in the institute at the time you went to Antwerp?—About 157.

Mr. ORGAN—For how many hours a week do the students attend the lectures?—About 34 hours a week on the average; from 8 a.m. to noon and from 2 to 4.

Mr. WALLAS—Is the full attention of the students given to their professional studies? Suppose that a student shows great mathematical power, would he continue mathematics to a high university standard?—No, unless the professor took a special interest in him. The whole of the teaching is given in lectures, no class work being held. The examinations are held twice a year, when the students are questioned and written papers are required (see note H). There are no special restrictions upon the liberty of the students. We state officially that we do not want to resort to disciplinary measures. A delegate from the Hungarian Government, a director of a school at Buda-Pesth, visited the institute recently, and was greatly surprised at the manner of conducting the institute (see note J). The examination certificates are of importance in some countries. In Russia for instance, the certificates which are obtained by examination are highly esteemed, as the holders are exempt from a certain portion of military service.

Rev. C. G. GULL—What proportion of your students are Belgians?—About five-eighths.

Mr. ORGAN—How many English students are there?—I have had only one. He came from the Manchester Grammar School with a scholarship (see note K).

Mr. ORGAN—Have you followed his career?—I have heard that he has been very successful. Before completing his course he succeeded in securing a very good appointment in an insurance company's office at Manchester.

Mr. ORGAN—How many languages do the students take?—German, French and English are obligatory. They must then take either Italian, Spanish, Dutch or Russian.

Rev. C. G. GULL—Must they pass in all?—French, German and English are obligatory, but to obtain a diploma or degree a student must pass in a fourth language, Flemish (Dutch), Italian, Spanish or Russian.

Mr. EASTERBROOK—With regard to the only Englishman who has studied at the institute, what subjects did he take for the matriculation?—French, physical geography, commercial arithmetic, algebra (as far as would be required for the London matriculation) and geometry, book-keeping, rudiments of natural philosophy, commercial history, commercial law and political economy.

Mr. EASTERBROOK—Had he to translate from French to English and German to French; would that be a good examination?—All that is required is that a student shall express himself clearly in the various languages. We have difficulty at times with students who have not been properly prepared in the elementary schools. I take English, but I am frequently interrupted by backward young fellows who are unable to follow my lectures, because their knowledge of the language, previously obtained in the schools, is not sufficiently practical.

Mr. WALLAS—Could a lad get a thorough knowledge of any branch of the curriculum for which he showed special aptitude and take other subjects as well?—Yes, but students should show proficiency in every branch taken up. *Vide* "L'Enseignement Commercial, et Les Ecoles de Commerce," par Eugène Léautey, page 600 *sqq.*

Dr. GARNETT—Do you think it desirable that there should be more direct intercourse between students and professors?—Yes. The present system is imperfect. Students are left too much to their own resources. They are not compelled to attend the courses.

Mr. EASTERBROOK—It is a system by which lazy students do not get on and energetic students prosper?—Absolutely.

Mr. LAYTON, continuing, said that at an interview which he had had in the morning with a prominent Belgian gentleman, he put the following question—If you had a son destined for a commercial career would you send him to the Institut de Commerce? He replied that under the present system he would not, on account of the lack of efficient supervision, although he was prepared to admit that the instruction was admirable. Some students abuse their freedom, and consequently this absence of control over the students is a weak point in the working of the institute. The roll-call of students at the lectures is but a formality, and parents have no means of knowing through the medium of the institute whether their sons are attending the lectures and progressing satisfactorily. In establishing another institute on the model of the Antwerp Institute this is a point I would enforce, along with other reservations.

Mr. Layton read out the following extracts from the report of the Belgian Minister of the Interior, the minister responsible to the Government for the money spent in the maintenance of the institute—

"The object of the institute is to furnish to young men who intend following a high commercial career the supplementary instruction which they commenced in the higher secondary schools."

"The success of the school is apparent from the number of students present, and shows that it responds to a real need."

"The success achieved by the institute at Antwerp justifies the sacrifices which the Government has made for the establishment"

"It is beyond all doubt that the institute exercises a notable influence on the development of our commercial arrangements."

"The great utility of this establishment cannot therefore be doubted, and the Government will neglect nothing to maintain it at the high position in which it is now placed."

The following changes in addition to the one above quoted would be desirable in a new institute established on the lines of that at Antwerp—

1. *Moral training of students*—The Roman Catholics in Belgium complain that the institute is practically closed to them; as the professors have no moral influence over the pupils they cannot send their sons to the institute. In consequence of this objection a school was established at La Louvière to undertake similar instruction. The curriculum of the new school is based absolutely on that of the institute. It is, however, essentially a private enterprise, undertaken by the Jesuit Fathers. One year is spent in Belgium, one in Germany, and one in England.

2. *Interchange of students*—If it were possible, it would be an advantage to arrange in London for an interchange of students with Antwerp. It would often be an advantage to an Antwerp student, after studying for two years, to be allowed, on the strength of his Antwerp diploma, to finish his third year in a London institute. The Antwerp institution could take London students for a third year to enable them to perfect their education in foreign languages.

3. *Establishment of hostels*—A residential college for students coming from the country and abroad would be a great advantage. It is generally admitted that moral influence is an important factor in education. The college would be a kind of residential house or hostel.

4. *Raising of age for admission*—The age for admission to the higher institutes should be raised from 17 to 18, because I think that young men attending such establishments should remain longer at school, and thus be better prepared than they now are to follow the lectures and lessons which necessarily appeal to minds better cultivated than that of the average schoolboy of 15.

5. *Study of languages*—The last point is with reference to the study of languages; the curriculum should give wider scope than at present.

Mr. ORGAN—Perhaps that latter point would be especially applicable in England?—Yes. With reference to the utility of languages, I may say that the Belgians are making great progress.

Mr. ORGAN—Can you give me a typical instance of past students and their achievements?—Yes. Baron Edmd. Van Estvelde, of the Congo Consular Service. A gentleman who left the institute for America told me recently that his success in life was mainly due to the education which he had received at the institution. Another instance is that of a young man who left at the age of 20 with a bursary for Canada to study the operations connected with the lumber trade. He came back to Ostend eventually, and is now a very prosperous man.

Mr. ORGAN—With reference to the consuls, have you an instance of one coming to England?—Yes; but I cannot give it off-hand (see note L).

Mr. EASTERBROOK—How long has the institution been in existence?—It was the outcome of the visit of the Belgian Government's representatives to the Royal Exhibition of 1851, and was founded shortly after their return to Belgium.

Mr. EASTERBROOK—When founded was there any demand for such an institution?—The demand had to be created. Twenty-three students attended in the first year. Some time ago the Japanese Government sent 14 young men to the institute. Some Antwerp students were offered teaching appointments in Japan. These, however, were supplanted as soon as the Japanese students at the institute had completed their course. The school is now very prosperous. At Leipsic there is also a very good higher commercial school, 200 students having already entered.

Mr. ORGAN—Do you find that the work of your institute has had any effect on the work of the secondary schools?—Yes.

Rev. C. G. GULL—Is there any specialisation?—Yes.

Dr. GARNETT—Have you trained teachers for the secondary schools?—No; but some of our old students are professors of the commercial sciences in different parts of the world.

Mr. EASTERBROOK—How does your secondary school differ from the English secondary school, apart from the teaching of arithmetic?—The lads are trained to use the brain more than the pencil.

Mr. EASTERBROOK—Is there any other difference?—Yes. I think that when boys and girls leave at the age of 15 or 16 they should be endowed with such instruction as would enable them to solve the problems which confront the ordinary business man or woman in after life. It is rare to find an English boy with an intelligent knowledge of subjects removed from the curriculum of the school at which he has received his elementary instruction. I refer more particularly to a knowledge of products of the soil and of industry. I take it as a matter of course that all children should be taught modern languages.

Mr. EASTERBROOK—You consider that the teaching in your secondary schools is superior to that in the English schools?—In modern languages, certainly. My own children speak English, Flemish, French and German. One who went first to the Antwerp German school, and subsequently to the institute as a free student, is now doing well in business, though quite young. A second boy who attended a German school for nine years, is now in a London office.

Mr. BOND—Does a boy in a Belgian school speak English or German better than an English boy can speak French or German?—Yes.

Mr. ORGAN—Suppose that the Board had an idea of starting a college, what would you consider we should require in the way of staff?—A director as head of the establishment. The director of the institute at Antwerp has no control over the curriculum. The curriculum is arranged by the Education Department.

Mr. ORGAN—You would recommend a director who would have control over the general discipline of the school?—I think you would require a director who would not be occupied entirely in teaching. A man cannot be responsible for the supervision of an establishment, and at the same time give up the whole of his time to teaching. The director should not be wholly exempt from teaching, but should only be expected to deliver lectures from time to time in order to show the students that he takes an interest in their work. A “chef de bureau” or a teacher of book-keeping and a teacher of political economy would be required. These subjects should be taught in the secondary schools to every one, and continued in the higher schools. In addition to these, and naturally under the direction of the principal, there should be four masters teaching in different languages—in French, German, Spanish and Italian. They should not be called upon to teach the languages, but to teach *in* the languages. On the other hand I would have, if possible, some assistant professors or masters to teach the languages themselves. These would ultimately become candidates, eligible in every point of view, if a professorship became vacant.

Mr. EASTERBROOK—What do you think should be taught in secondary schools in political economy?—The meaning of wealth, its production, exchange, distribution &c.; in a word, the outlines of political economy.

Mr. BOND—What subject do you teach?—I take everything in English connected with commerce and literature, political economy, &c., &c. At certain times the English and German teachers would be giving similar lessons, but in different languages.

Mr. EASTERBROOK—How have those professors obtained their intimate knowledge of business transactions?—The professor of German has been a teacher at the Athénée for fifteen years.

Mr. ORGAN—Have you anyone in the institute with a practical acquaintance with commercial life?—Yes, the director and the chef de bureau.

Dr. GARNETT—Do the Frenchman, German, Italian and Spaniard teach the commercial practice of their own country in the language?—Yes. The president of the Tribunal of Commerce, in receiving the members of the congress recently, said, “Gentlemen, I venture to say that if every business man had received such an education as is given at the institute, and which we hope will be given before long in many other places, our occupation would be gone.”

Mr. ORGAN—Is commercial and industrial geography taught in French?—Yes, but the foreign professors neglect no opportunity of giving the students information in regard to their own country. The general subjects are taught in French. Belgium is endeavouring to establish her own mercantile marine instead of depending on other countries.

Mr. BOND—With regard to discipline you say that the students are not lodged in the establishment, but take lodgings in the town?—Yes, an experiment was made in boarding the students, but the whole arrangement fell through for want of supervision.

Mr. SEBASTIAN—You think that students should not begin under 18 years of age, and that in your opinion the preparation is generally speaking inefficient. If that preparation in secondary schools were better, would you then be able to take the students at an earlier age?—No, the aim of a “higher” commercial institute should be to turn out a “higher” order of man, and as a rule the mind of a boy of 16 or 17 is not ripe enough to enable him to receive the instruction necessary to achieve the end in view.

NOTES ADDED BY PROFESSOR LAYTON.

A.—Importance of preliminary preparation.

By this I mean that it is useless to think of sending a lad to an institute or school having a special and advanced curriculum unless he shall have received most careful instruction in the elementary stages of his education.

I do not wish to see “specialisation” in the secondary any more than in the primary schools, but I do think that the previous mental discipline of a lad destined for a commercial career should be as severe and as exact as that of the one destined to pass through a University in order to become a successful lawyer or doctor.

I have been out of England for many years, and therefore cannot claim to have an accurate knowledge of the actual position of secondary education in Great Britain. But it seems to me that, while the greatest care is given to the mental training of boys on the classical sides of English schools, that bestowed on lads on the modern side is, to some extent, perfunctory and superficial. Teachers know that in order to stand the rigorous test of University examinations, a boy’s knowledge must be sound; they devote, therefore, the most careful attention to his preliminary instruction. But to the larger number of boys, who quit the school to go direct into the business of life, there is no examination test; and knowing this, teachers have no real and immediate interest in developing the mental faculties of their pupils.

I am aware that this fact has already been fully recognised, and that in order to remedy the evil the Universities established their local examination schemes, and the London Chamber of Commerce its “Leaving Examination Certificate.” But after an experience as a teacher extending over more than a quarter of a century, I cannot but regard these examinations, and I say it with all respect, as tending only to replace true mental culture by a system of baneful cramming.

If it be desired that a lad take his place in the world as a pioneer of commerce, as a captain in trade, his intellectual capacity must be as carefully developed as if he were destined for medicine or for the law.

If unfortunately, however, his lot be to earn his bread as a simple employé or clerk, his previous mental instruction is not of paramount importance. He will become a mechanical worker, and the sooner he leaves the school desk to learn the mechanism of his future life, the better.

But—the aim of a higher institute of commerce should not be the making of “clerks,” but of men, to whom the commercial progress of a nation may safely be entrusted.

Such was the object had in view by the Belgian Government when it established the Institut Supérieur de Commerce at Antwerp.

B.—*Specialisation in elementary schools not desirable.*

The Antwerp Chamber of Commerce recently presented a memorial to the Government asking for “specialisation” in the secondary schools of the country. They admitted the usefulness of higher schools for commercial subjects, but could not close their eyes to the fact that these institutions could only be frequented by the few. They demanded, therefore, commercial “specialisation” in the *Athénées* or superior secondary schools.

Their motives have been criticised, as it was thought that they were not wholly disinterested. The members of the Chamber are mercantile men of high position, to whom a staff of clerks is a “*sine quâ non*” in the conduct of their business. They found that the supply of pliant docile clerks was diminishing, and was being replaced by young men of superior attainments, who were not content with the drudgery of mechanical work, and its miserable remuneration. They saw themselves compelled to take into their offices the German, who came as “*volontaire*,” and who worked well only so long as he had something to learn. They wished to have the “native article,” competent to do a clerk’s work at a clerk’s pay; but these were not forthcoming; *hinc illae lachrymae*.

The Belgian Government’s only reply, as yet, has been to organise a third year’s course of study at the Antwerp Institute, and to create a special commercial faculty at the Universities.

C.—*Ecole Professionnelle de Jeunes Filles.*

The curriculum of the *Ecole Professionnelle de Jeunes Filles* is divided into two sections.

The first—to follow which is compulsory—includes the study of the following branches, viz., the French and Flemish languages; arithmetic; history and geography; elementary notions of natural history, of natural philosophy, of chemistry, of education, of hygiene and of domestic economy; with drawing, singing and gymnastics.

The special subjects, the study of which may serve as an apprenticeship to the trades and occupations open to women are commerce (including book-keeping, arithmetic applied to commercial transactions, the English and German languages, and prose composition).

Drawing and design applied to industrial pursuits.

Dressmaking, cutting out, and needlework generally.

Artificial-flower making; and any other subject which may from time to time appear desirable.

D.—*Girls not so well prepared as boys.*

The headmistress in the course of conversation said that, in her opinion, the instruction given to girls in Belgium was not as good as that given to boys. She complained that, as a rule, the pupils when they came to her first were not qualified to follow the classes of the obligatory subjects. (*Vide C.*)

E.—*Drawing promissory notes and writing shorthand.*

In order that any useful comparison may be made, it is necessary to understand exactly the meaning to be attached to the term “specialisation.” For instance, Dr. Garnett asked if a boy in a Belgian *Athénée* is expected to write shorthand. Now, we should not look upon the teaching of shorthand and of typewriting as “specialisation.” The mastery of neither the one nor the other can have any particular result on the mental training of a lad, inasmuch as both are mechanical operations. It goes without saying that they are most useful accomplishments, but they should be taught at the school desk, and there taught well. A lad, entering a university or higher institute with a practical knowledge of shorthand, can effectively follow a lecture in all its minutiae, and his typewriting will enable him at the close of the day to make a fair and useful copy of his notes.

But he cannot afford to interrupt his serious studies by giving up a certain time each day to acquire a purely mechanical pursuit.

“To draw a bill” may be regarded as “specialisation.” But “to draw a bill” is one thing; to have a knowledge of the incidents attending its circulation is another. A good clerk may “draw a bill” most correctly; he may be, and probably is, ignorant of the many complicated questions of law involved in its ultimate negotiation. The former would be taught at the *Athénée*, the latter at the institute.

F.—*The Athénées.*

The age at which youths enter the higher commercial schools on the Continent has been regulated to a very great extent by local circumstances. Boys there, as a rule, begin their schooling earlier than in England, and, following one connected system, they are enabled to finish at the age of sixteen. They are then too young to go to the University; but as, in the opinion of their parents, they still have need of some special instruction, they are sent to one of the higher technical schools. At the Antwerp Institute, however, as I have already said, students are not received before the age of 17.

The majority of the Antwerp *Athénée* pupils go at once—if on the modern side—into offices; if on the classical side, to the Universities of Gand, Louvain, Liège or Brussels. Some go to the excellent technical schools, with which Belgium is so well provided. Those whose parents wish them to take a prominent part in the business world, and who have the means to give them further schooling, are enrolled as students at the Antwerp Institute.

G.—“*Nearly every student takes the full course.*”

My answer to the question of Mr. Wallas applied only to the “ancien régime” of the institute. The third year’s course, as special preparation for the Consular Service, was instituted only three years ago, and naturally, not every student can aspire to be a “consul.” So far, only students of exceptional ability, those who have interest in high quarters, and whose means permit them thus to continue to pursue their studies, have joined the third year. Nearly every other student takes the full course of two years, at the end of which, if he successfully pass his examinations, he obtains the diploma of “Licencié en Sciences Commerciales,” a degree which is much appreciated at home and abroad.

H.—*Examinations twice a year.*

The chief examinations are as stated; but, in each year, two preliminary examinations, written and oral, are held by the professor himself, in order that he may determine the progress of the pupils. The matter is confined to the subjects treated in the lectures of the six or eight weeks preceding the examination. The professor gives the marks according to fixed data, and these marks are taken into consideration at the final examination at the end of each year.

These final examinations are conducted by a Board of professors and of merchants. The former are nominated by the Government, from among the staff of the institute, or from among the staff of another university body. The latter are gentlemen of high position in the commercial world.

J.—*The opinion of a Buda-Pesth delegate on the Antwerp School.*

This gentleman was Professor Béla Schack, Principal of the Buda-Pesth Academy of Commerce. He was present at several of the lectures, and expressed surprise at seeing such good order maintained in the class rooms, and such respectful attention given to the professors. He informed us that in Buda-Pesth it was very difficult to secure the attention of the students. I have since been informed that in this respect Antwerp may be compared favourably with Paris and other continental institutions. Professor Schack was more particularly struck with the practical teaching of modern languages. “You give to them vitality, and thus make the study of them of real interest to your students,” was his observation.

K.—“*Only one English student.*”

The answer to this question is misleading. I meant to say that I know of one only who had successfully passed the entrance examination—a young fellow from Manchester who was placed under my private care; he was a boarder in my family. On reflection, I can only recall three or four other lads of English nationality who, for a time, have been enrolled as free students, that is, who have attended the lectures without endeavouring to pass the examinations.

The reason why so few English lads, in my opinion, have profited by the advantages offered is twofold—

(a) Because their ignorance of the French language would preclude all idea of their being able to follow the lectures, except as a means of learning French as a language.

(b) Because no moral restraint whatever is exercised upon the students when once they are outside the institute walls. There are no “hostelries”; and only one or two of the professors are willing to take boarders. Such an arrangement does not commend itself to English parents, who very properly recognise the fact that moral supervision is a most important factor in the education of youth.

I mentioned this testimony as being so strongly confirmatory of what I myself think—that no education whatever can be really effective which leaves out the question of moral instruction. In England, a healthy public opinion effects this; in Belgium—I regret to say it—such is not the case. Religious and political dissensions are the cause.

M.—*A Belgian Consul in England.*

Monsieur Lenders, Belgian Consul-General at London, is an old student.

26th May, 1898.

Mr. Cloudesley Brereton.

Mr. C. H. S. BRERETON, M.A., of St. John’s College, Cambridge, said that he had been recently enquiring into the French system of commercial education. He attended the recent International Conference on Commercial Education at Antwerp as a delegate from the London Chamber of Commerce, and read a paper on the subject of commercial education in France.

Mr. ORGAN—Have you had any experience of our English schools?—I have been for seven years in a secondary school as a teacher, and have taught the usual form subjects.

Mr. ORGAN—Have you had any experience in French schools?—No, I have taken classes, but merely to get information.

Mr. ORGAN—When did you make your inquiries into the French system of commercial education?—I went over to France in March of this year and stayed for about five weeks.

Mr. ORGAN—I understand from a paper of yours which I have seen that the French schools may be divided into three classes?—Yes, higher, intermediate and lower schools.

Lower schools.

Mr. ORGAN—What is the character of the lower schools?—The Ecole Pigier is nothing more nor less than a school for teaching the routine of office work in a short time—something like Pitman’s Shorthand School in London.

Mr. ORGAN—Is it the only one of its kind?—As far as I know it is the only one in Paris.

Mr. ORGAN—Is it a private school?—Yes, but it receives a certain amount of public assistance, and a number of scholarships are awarded by a public authority—the state or the municipality.

Mr. ORGAN—But the state and municipality are not in any way responsible for the management?—No.

Mr. ORGAN—Then we may consider it a private-venture school?—Yes.

Mr. BOND—What is the age of the students?—There is no limit of age.

Intermediate schools.

Mr. ORGAN—What schools do you include under the heading of intermediate schools?—There are seven schools in France, but the only one in Paris is the Ecole Commerciale de l'Avenue Trudaine.

Mr. ORGAN—Have you been over this school?—Yes.

Mr. ORGAN—What are the ages of the students?—Between 12 and 14.

Mr. ORGAN—The students would come direct from the primary schools?—Yes.

Mr. ORGAN—Is this strictly a commercial school?—Yes, absolutely. The Chamber of Commerce and the Ministry of Commerce have a voice in the preparation of the curriculum.

Mr. ORGAN—From what source does this school receive its funds?—It is self-supporting at the present time. Its funds in the first instance were derived from private subscriptions; there was also a subsidy from the Chamber of Commerce.

Sir PHILIP MAGNUS—The Chamber of Commerce is a very wealthy and powerful body, is it not?—Yes.

Mr. ORGAN—I note that the number of students at the school is 500?—Yes.

Mr. ORGAN—What is the length of the course?—The pupils enter at 12 and leave at about 15 or 16 years of age. The course lasts about four years.

Mr. ORGAN—I note that the languages taken are German, English, and Spanish. Is the teaching carried on entirely in these languages?—Yes.

Mr. ORGAN—Is there any literary instruction?—Yes; in the French section French is taught on a literary basis.

Mr. ORGAN—Is it expected that the greater part of these boys leaving at 15 or 16 should go into commercial life?—Yes; nearly all of them.

Mr. ORGAN—Is this school preparatory to the higher school?—No; the students leave to become clerks.

Mr. ORGAN—The training at this school is not intended for “captains” of industry?—No; the best boys will become correspondents in commercial firms.

Mr. ORGAN—Is there an age at which they are compelled to leave school?—I do not think there is any limit.

Mr. ORGAN—Is this school typical of all the other schools?—Yes, though there are some slight divergences in programme; but as the Chamber of Commerce has practically the control of the programmes, the schools are all kept to nearly the same level. The other schools are in the large commercial towns of France.

Higher schools.

Mr. ORGAN—What schools or colleges have you visited which give higher education?—Only the three schools in Paris. They are similar in character. They are the Ecole des hautes Etudes Commerciales, the Ecole Supérieure de Commerce, and the Institut Commercial de Paris.

Mr. ORGAN—Are there any other higher institutions in France for commercial education?—Yes, at Bordeaux.

Mr. ORGAN—Have you any idea of the number of commercial schools in France?—About 15.

Mr. ORGAN—With reference to these three schools in Paris, are they all conducted on the same lines?—Yes, they were started for different purposes, but are now assimilated.

Mr. ORGAN—How long have they been established?—The Ecole Supérieure de Commerce has been established about 70 years. The schools were first started as technical schools. They are well patronised, as the best students are exempt from military service.

Mr. ORGAN—What is the average age on leaving?—About 20 or 21.

Mr. ORGAN—Did you find out the sources from which the students came?—Yes, they come from the secondary schools.

Mr. ORGAN—What is the age of entry?—Usually 16. There is no major limit of age, but students are not taken younger than 16.

Mr. ORGAN—What is the length of the course?—Two years.

Mr. ORGAN—Do the students attend every day in the week?—Yes, the authorities are very strict with regard to attendance. There are two examinations every week.

Mr. ORGAN—Is there a boarding house for students?—Yes, boarders are taken.

Mr. EASTERBROOK—Do I understand that there are two examinations every week?—Yes, and examinations are also held monthly and at the end of each term. I think that the weekly examinations are excessive.

Mr. ORGAN—Can a student undergo practical commercial training?—No, the Paris School of Commerce has discarded the idea of the Antwerp system. At Havre there is a higher school called the Bureau de Commerce.

Mr. ORGAN—How many students are there in these schools?—I cannot say.

Rev. C. G. GULL—Do they average 120?—They vary.

Mr. ORGAN—Did you find that these schools were becoming more popular?—Yes.

Mr. ORGAN—You found that more students were applying, and that they were of higher social status than the earlier students?—Yes, the exemption from military service has raised the standard.

Mr. ORGAN—Did you make enquiries as to whether the supply was creating a demand?—I should say that ten years ago it was far more difficult to place a boy than it is to-day.

Mr. ORGAN—Have you anything to say with regard to the placing of the students?—It seemed to me that the business men of Paris were more favourably disposed towards the schools than they were ten years ago, as many have been through the schools; the value of the schools to the community is appreciated.

Mr. ORGAN—Did you enquire as to where the students went?—Yes, the greater portion of them go into commerce. The figures in the reports are misleading; out of 1,000 pupils 500 are classed under “manufacture” instead of “commerce.” A large number go into the selling departments of manufacturing houses.

Mr. ORGAN—Do the students pay fees?—Yes, the fees are very high, viz., £40 a year.

Rev. C. G. GULL—Does this include board?—No, the fees including boarding are £100 a year.

Mr. ORGAN—Is there any special point you would like to mention to the Committee with reference to these higher commercial schools?—No, it is a matter for consideration whether a school should be built within or outside the city. Some think that the school should not be too centralised, that they should be built within easy access of Paris, but outside the city.

Mr. ORGAN—What is your own view?—If there are boarders, the school should be built within easy access, but outside the city.

Sir PHILIP MAGNUS—How far outside?—About 20 minutes ride by railway.

Mr. ORGAN—What struck you as being the great difference between boys in our own secondary schools and boys in secondary schools in Paris?—French boys are quicker than English boys.

Mr. ORGAN—As far as the curricula are concerned, what is the difference between the French and our own?—French secondary education is systematic. Our secondary education at the present time may be described as chaotic.

Mr. BOND—Have we any commercial schools here corresponding to the schools in Paris?—I think not, but I do not know much of the schools in England.

Mr. BOND—How long have these schools been going?—The movement dates from 1867.

Mr. BOND—Did you get evidence from commercial men?—Yes, from the heads of some of the biggest firms in Paris, and almost all are favourable to the school.

Sir OWEN ROBERTS—What are the exceptions?—I do not think that the exceptions were serious. Some of the business men do not want clerks to know more than the three Bs. Others think that, because the schools do not turn out complete men of business, the instruction is useless; they forget that the instruction is intended to supplement and not to supplant the practical business training.

Mr. ORGAN—Did you find that any commercial men condemned them?—Yes. One man who condemned them had had some boys from the schools and had found them unsatisfactory. The *Ecole Supérieure* has too abstract a curriculum; there is too much mathematics.

Mr. BOND—Have these men had practical experience of the boys?—Yes.

Mr. BOND—What kind of a position would a boy expect to take?—If a boy goes straight from the secondary school to business he would get about 800 or 1,000 francs, whereas if he goes from the higher school he would command something between 1,500 and 2,500 francs. I have heard that boys who have been through the school should expect 4,000 francs.

Mr. ORGAN—You mean those leaving the higher commercial schools?—Yes.

Dr. GARNETT—Are these students of between 20 and 21 years of age?—Yes, if they leave school at 20 they would not go into business for two years owing to military service. Only four-fifths of the students, who must get over 65 per cent. of marks in each subject, can claim exemption from military service.

Mr. BOND—This has a tendency to make the attendance regular?—Yes.

Mr. EASTERBROOK—When they leave the higher institution they go into military service?—Some, if old enough, perform their military service before entering the higher school.

Mr. EASTERBROOK—Do not these young men receive at first very little salary considering the high fees paid at the school?—Perhaps so, but one fourth or one third are the sons of big people in commerce, and salary is not of the first importance to them.

Mr. EASTERBROOK—Those who go to the school in order to be in a position to earn their own living are paying a great deal for the salaries in prospect?—If they did not go to the school they would only get in Paris about 700 or 1,000 francs. Clerks who have had the training are quicker in taking instructions.

Mr. BOND—Do employers lay any stress on languages?—Yes; in one school two-thirds of the boys were capable of conducting correspondence.

Dr. GARNETT—Have they in these schools foreign teachers who lecture in their own language? Have they a German who is lecturing in German?—No.

Dr. GARNETT—The whole of the teaching is conducted in French except the teaching of other languages?—Yes.

Dr. GARNETT—In Antwerp a German lectures on German law, economic theory, and other subjects in his own language. Is that done in Paris?—No; I do not understand how it can be done in the space of two years.

Mr. EASTERBROOK—In how many foreign languages do they become correspondents?—Parisians in German and English.

Mr. EASTERBROOK—Do you mean two subjects besides French?—Yes; I said that two-thirds of the boys in a particular class would be able to conduct foreign correspondence.

Dr. GARNETT—Are the examinations, which are held twice a week, conducted by outside examiners?—Yes. They are oral examinations of one half-hour's duration.

Dr. GARNETT—Is the examination on the work of the last three days, or is it a general examination?—I believe that the examination is on the work of the past fortnight.

Mr. BAYLEY—To be able to pay these fees and command high salaries for their sons on leaving, the parents must be manufacturers in a good way of business?—The schools exist essentially for the sons of the rich people; there are a certain number of scholarships awarded for the poorer people.

Sir OWEN ROBERTS—How far would these two classes be level in salary? Are the high situations obtained through influence?—No, places are usually found for all the students.

Rev. C. G. GULL—How many scholarships are there?—The scholarships in France are only given to those people who stand definitely in need of assistance, or who are members of a large family.

Rev. C. G. GULL—Is the size of the family taken into account?—Yes, but the salary of the parent principally.

Dr. GARNETT—What are the governing bodies of the schools?—The schools are under different bodies: the Ministry of Commerce, Chamber of Commerce and the State.

Dr. GARNETT—Who is responsible for the control of finance?—There is a body of governors who would be responsible for money.

Mr. BOND—Has the Chamber of Commerce any funds apart from the subscription of members?—Everybody in business has to take out a licence; a certain proportion of the proceeds is paid over to the Chamber of Commerce. The controlling body consists of 30 members elected by tradesmen.

Mr. BOND—We have some special schools for special branches of industry, such as dyeing. Have they anything corresponding in France?—Yes, there is a printing school and a few others. I am told that the technical education in England is better than in France.

Mr. EASTERBROOK—You have been told so?—Yes, by people in France. There is nothing like the Birkbeck Institution in France. Mons. Buisson sent a Commission to England last December, which was greatly interested in the technical education in London.

Sir OWEN ROBERTS—I assume that the purely technical schools are in the seats of the particular industries?—Yes; I should like to mention that the merchants in France have in an extraordinary way come forward to found these schools. The Institut de Commerce was founded by private subscriptions.

Mr. Montague Barlow.

16th June, 1898.

Mr. MONTAGUE BARLOW, Lecturer on Commercial Law at the London School of Economics, said that he had been for two years lecturer on commercial law at the London School of Economics. The curriculum consisted of the law of contract, which was taken in the first term, and the law of partnership and companies, which was taken in the second. These courses were followed by a short summer course on bankruptcy and bills of sale. Mr. Barlow stated that he had succeeded in getting the London Chamber of Commerce to revise its scheme of examination so as to bring it into correspondence with the lectures delivered at the School of Economics.

Mr. ORGAN—How many students are there in your class?—The numbers are gradually going up. There were about 28 last term.

Mr. ORGAN—Can you give me a classification of the occupations of the students?—The students come from various trades, but they are mainly engaged in commerce. There are only two law students and only one engaged in a Government office. Others are ordinary clerks, some between 35 and 40 years of age. There are also a few sons of owners of businesses and junior partners.

Mr. ORGAN—How many times a week is the class held?—Once a week in the evening, commencing at 6.30. The lecture lasts one hour, and is followed by a conversation class.

Mr. ORGAN—I understand that you have made enquiries with respect to commercial education abroad on behalf of the London Chamber of Commerce. What was the nature of the enquiries?—I went at Christmas and visited the colleges in France and Switzerland dealing with commercial education. I visited the three colleges in Paris, the school at Havre and the schools at Basel, Zurich and Neuchatel. This last school is, in my opinion, doing good work, but little attention has been paid to it.

Mr. ORGAN—What are the peculiar features of this school to which little attention has been paid?—I had a conversation with the head of the department on commercial subjects on the educational side, and he told me that the college was entirely independent.

Mr. ORGAN—Do you mean in the educational sense?—The main point is that it is difficult to get a proper combination of science and business education. The commercial institution requires a special council of its own, otherwise the probability is that the commercial side will suffer. In Berne there is the pro-gymnasium where students attend up to 14 years of age; afterwards they pass on to the gymnasium, real-schule or handelschule, according as they require a classical or a commercial education. These schools are carried on in the same building under the same council, but under different directors. There is only one merchant in the town on the council and the result is that the commercial school is suffering very much. At Neuchatel the school is very good.

Mr. ORGAN—What class of students attended the school at Neuchatel?—They were from 16 to 18 years of age, and were directly preparing for business life.

Dr. GARNETT—How many students are there in the school?—About 200.

Mr. BOND—Is there any instruction given in the language and upon the commerce of a country?—Yes, I was present at a class which was being taught in English the system of English accounts.

Mr. ORGAN—This is really being done?—Yes, the director of the school is an excellent man who is always devising new schemes. This system is carried on very intelligently.

Mr. ORGAN—You think this system is doing good?—Yes, in teaching the mechanism of trade.

Rev. C. G. GULL—Can they learn this system quicker at the school than at the office?—Yes.

Rev. C. G. GULL—How is it that they cannot learn it in the office?—They can, but they learn it so much quicker and more intelligently at the school.

Mr. ORGAN—Are there any other places you have visited?—I think the Ecole des Hautes Etudes at Paris is very good. The Antwerp school was not open when I was over, but I visited the school at Havre.

Sir PHILIP MAGNUS—Is Neuchatel the only school you know of where this mercantile bureau exists?—Yes.

Sir PHILIP MAGNUS—How long were you in the schools at Paris?—Only a very short time.

Sir PHILIP MAGNUS—Did you see the Institut Supérieur?—Yes. This school is not under the Chamber of Commerce, but under the Municipality, as also are two others.

Mr. ORGAN—With regard to the students in your class, do they come from secondary schools?—My lectures are by no means elementary, and therefore no one comes unless he has had a good training previously.

Mr. ORGAN—You say by no means elementary, but with reference to legal matters had not you to begin in an elementary manner?—Yes, you have to bear in mind that you are lecturing to laymen, and not to experts. The following subjects have been dealt with—bills of exchange, sale of goods, companies and marine insurance. I get rather a superior class, and therefore cannot make a complaint about the secondary education of the students.

Mr. ORGAN—Suppose something were started similar to the school at Antwerp, what relation would the lectures at such a school bear to those at the School of Economics?—That would be for the director of the school to decide. The lectures at the School of Economics are very good. I get rather a different class from other lecturers, many of my students being University graduates. As a rule the students are engaged in commercial industries.

Mr. BOND—How old are the students?—They vary. The youngest is 20, and the eldest about 40.

Mr. BOND—You do not get them immediately they enter offices?—No.

Dr. GARNETT—With regard to the analogy between a school similar to the Antwerp School and the School of Economics, what we wish to know is whether the lectures at the School of Economics would form any part, say a third year's course, in such a school?—The School of Economics takes a very much higher position than an institute of commerce could expect to take.

Mr. ORGAN—Is the School of Economics higher than the Antwerp School?—Yes.

Dr. GARNETT—Is it higher than the consular course at Antwerp?—Yes.

Dr. GARNETT—Is it higher than a consular course ought to be?—I cannot say.

Sir P. MAGNUS—Would you be favourably disposed towards the establishment of a school in this city on the lines of the Neuchatel School?—Certainly, if it were conducted properly.

Sir P. MAGNUS—Would parents send their boys of 18 years of age to the school previously to their entering commercial pursuits?—I believe they would.

Sir P. MAGNUS—Would they at first?—Perhaps not, but the school would succeed in time. It is very difficult to get the business element interested in a school of this kind. At Neuchatel, Suchard and other large manufacturers are thoroughly interested in the school, and this no doubt is the cause of the good results obtained.

Rev. C. G. GULL—Have you, on behalf of the London Chamber of Commerce, conducted enquiries among London merchants?—No, I have only consulted with them in a private way, and not in any official capacity.

Mr. ORGAN—Do you find any feeling amongst business men that we are not doing enough work on the commercial side?—It is very difficult to answer. Many intelligent men think that something should be done for commerce. Mr. Tritton, the banker, for instance, thinks that something should be done beyond what is already done by the Bankers' Institute. The average British merchant, however, does not believe in education. I was once lecturing at Bristol, and for the purpose of illustrating my lecture I tried to obtain specimens of bills of exchange from a local banker whom I knew very well. He, however, refused to help me because he did not believe in commercial education.

Dr. GARNETT—Are not some people of opinion that nothing more than a knowledge of book-keeping and shorthand is necessary?—I cannot say.

Dr. GARNETT—What class of men are those whom you have interviewed in London?—Mostly bankers.

Mr. ORGAN—Do you find many foreigners in your classes?—Yes, a good many. In the last term there were four Germans, one Japanese, and one other foreigner out of a total of 28.

Rev. C. G. GULL—Would you be in favour of introducing commercial training in secondary schools?—No, because I think that commercial education is a superstructure, and can only be given after a good foundation in ordinary school subjects.

Dr. GARNETT—Do you consider that the teaching of modern languages should be improved?—Yes.

Dr. GARNETT—If we had the organisation of the secondary schools, should we require better teachers?—No, I very strongly protest against specialisation.

Dr. GARNETT—If a school were established, do you think a three years' course would be necessary?—It would depend upon whether the students could attend during the day, or whether they could only attend in the evenings. The sons of merchants would no doubt attend in the daytime.

Dr. GARNETT—The last class would be able to devote their whole time. Would you not keep them three years?—Perhaps, but two years should be sufficient.

Mr. ORGAN—With reference to there being no demand at the present time amongst business men for a school, how long has the school at Neuchatel been established?—About 25 years. It is subsidised by the State.

Mr. ORGAN—Did you enquire as to whether there was any demand for a school at Neuchatel 25 years ago, when it was established?—I did not enquire.

Mr. ORGAN—Did the Swiss authorities give you the idea that commercial education was becoming more popular?—It all depends on the school—whether you have business men on the governing body, a director who is interested in the school, and the right class of students.

Mr. BOND—What kind of work is done at the bureau at Neuchatel?—There is a course of three years in book-keeping. In the first year the students are taught by means of the blackboard. They are also taught to keep books. In the second year each boy works independently. He is given

financial papers from several countries to enable him to obtain the prices of commodities for the week. The boys then enter into relations with each other and make purchases on certain terms. The letters are sent to the professors, who correct them previously to their being returned to the boys who act as purchasers. Every single transaction is supervised. This necessitates very small classes. At the Antwerp school cheques representing the amount of the transactions pass between the students, but this custom has not been adopted at Neuchatel.

DR. GARNETT—Do the boys draw bills for the amounts?—Yes; and they keep all books.

MR. ORGAN—Does this include the correspondence connected with the transaction?—Yes. Each boy conducts his correspondence under the supervision of the instructors.

MR. ORGAN—If a letter were written in English, it would be answered in another language, according to the nationality of the students?—Yes.

DR. GARNETT—Do they employ foreigners to teach the commerce of their respective countries as at Antwerp?—I understood from the director that at Antwerp this was not done, all the commercial work being taught by Belgian teachers. I think that the teachers are simply teaching in their own languages, and are given practically a free hand.

DR. GARNETT—Did you find at Neuchatel that they could get efficient teachers in the different branches?—Yes, the boys have to get up their subject and *vivâ voce* examinations are held. The director at the school was for some years a banker.

REV. C. G. GULL—Would it be possible to get teachers who were not engaged in business?—Yes, but it is an advantage to secure teachers with practical experience. The director and teachers are frequently consulted by business men in cases of bankruptcy, &c.

DR. GARNETT—Do you think that, if we had a school in London, we ought to have a managing committee composed of business men?—Yes.

DR. GARNETT—Do you think we should find business men with sufficiently enlightened views?—Some difficulty would be experienced, but the men are to be found.

MR. BOND—Must all the students be able to conduct business in two languages other than their own?—Yes, they must take two at least. The system of education in Germany is thorough, the ground being repeatedly covered until every student is perfect.

SIR PHILIP MAGNUS—At Neuchatel the various branches of merchandise are studied?—Yes, the science of commodities.

DR. GARNETT—Is there a museum at the school?—I think there is one at Antwerp. It is necessary to have practical business transactions carried on in the school.

DR. GARNETT—I suppose you would say a school like the London School of Economics would not meet the commercial requirements of London?—No, you must provide a definite curriculum for two years, and then specialise afterwards.

MR. ORGAN—If you had boys coming to you who had had two years in a commercial school, you would be able to do more effective work?—Yes. Boys who had gone through a course on commercial law would not come to my class. It is not absolutely necessary for all business men to get a thorough knowledge of commercial law, but some knowledge is useful.

Mr. A. Kahn.

16th June, 1898.

MR. A. KAHN said he was master of the commercial department of the Central Foundation School, and teacher of Latin and Greek at the Birkbeck Institution.

MR. ORGAN—Is there a separate commercial department at the Central Foundation School?—There are several departments, the civil service, the technical, and the commercial departments, the last doing general work. Three years ago the commercial department worked for the London Chamber of Commerce Examination, but now it pays special attention to modern languages.

MR. ORGAN—What are the ages of the students taking this work?—From 13 to 16.

MR. ORGAN—Who decides as to the department a boy shall enter?—The parents.

DR. GARNETT—What made you give up working for the Chamber of Commerce examination?—When the school became an organised science school, subjects were taken up suitable for preparing the boys for the Technical Education Board's intermediate scholarships.

MR. ORGAN—Do you know whether any parents have protested against the commercial education?—No, we still go on with commercial subjects, modern languages receiving special attention. All boys take book-keeping, but shorthand is optional. French and German are spoken, but there is not a commercial bias in the teaching of languages.

MR. ORGAN—Have you any Junior Cambridge course?—No. The top boys go in for matriculation and for intermediate county scholarships. This year some boys are going in for the Chamber of Commerce examination, which has been remodelled so that a boy can enter without any special preparation for it. A boy has to pass in one modern language, arithmetic, English, and in one set of optional subjects, algebra and Euclid or a commercial set. The scheme is now suitable for a secondary school.

REV. C. G. GULL—Is it about equal to the preliminary examinations for the Oxford and Cambridge Locals?—Much more difficult than those, more of the standard of the Junior Locals.

DR. GARNETT—Are you of opinion that they have done a right thing in altering the examination?—It does not matter to us, because the number of boys who take the examination is small. The examination simply overlaps the Cambridge examinations.

DR. GARNETT—Are you of opinion that there should be commercial instruction in a secondary school?—No, not in a secondary school, but in a special institution. They should enter the commercial school at 16. If they leave school at 15 they should be induced to attend the evening classes.

MR. BOND—At what age do the students leave the Central Foundation School?—The average age is 15, but some boys continue up to 18.

MR. KAHN then read several advertisements for clerks. In no case was an educational training considered an essential, the majority of employers simply wanting smart intelligent clerks of about 15 years of age.

Rev. C. G. GULL—A good certificate on leaving school would always secure a boy a place?—Yes.

Mr. ORGAN—Is it easier now to get a boy into an office?—No, more difficult.

Dr. GARNETT—Did you ever have a request for a boy with a knowledge of foreign weights and measures?—No. Of course merchants want clerks just for immediate interests, and do not trouble about what they will require later on.

Mr. ORGAN—Do you believe that boys with a knowledge of languages advance more rapidly than those without that knowledge?—Yes. They do advance more rapidly.

Rev. C. G. GULL—Do you find that insurance offices require a higher standard of education?—They require boys of fair attainments.

Mr. ORGAN—With reference to the Central Foundation School, would you say that commercial education is being given?—No, the boys only receive a good modern education.

Mr. ORGAN—You are not doing any commercial work?—No.

Dr. GARNETT—You have seen something of the continental schools, have you not?—Yes; I visited Paris last December; I am also acquainted with some of the German modern schools.

Mr. ORGAN—Did you form an impression that these schools were doing good work?—There are three higher schools in Paris. The lowest school is not doing good work. The teaching is very poor, but the other two are doing good work. The methods of the lower one are antiquated, and it is doubtful whether the school is responding to a real need. By passing certain examinations students are exempt from military service, and in some cases they enter the school with the exemption in view rather than from an intention of entering commercial life.

Dr. GARNETT—Did you see anything of the Ecole Pigier?—Yes, it is very well organised. It corresponds to Pitman's School. The school is arranged like a commercial community. One student takes the place of buyer and another of seller, so that all of them become practically acquainted with the documents used in business.

Dr. GARNETT—Is it possible to manage this system with students staying such a short time?—No.

Mr. ORGAN—Supposing that this Board established a higher commercial school to-day, do you think that it would meet a need? An institution which would take a boy for two years on commercial lines?—Yes, for boys from 16 to 18.

Mr. ORGAN—Have you come in contact with city men?—Yes; before I commenced teaching I was private secretary to Mr. Sassoon, an Indian merchant, and came in contact with many business men.

Mr. ORGAN—Do they feel there is any need for education?—Yes. I found that clerks understood very little what they were doing.

Mr. ORGAN—Were these Englishmen or foreigners?—One was an Englishman. I found that there was the greatest ignorance on such a subject as bills of exchange.

Mr. ORGAN—Were there many foreigners employed in the business?—One or two.

Mr. ORGAN—How was the foreign correspondence conducted?—There was a French clerk for the French correspondence, and a German clerk conducted the German correspondence.

Dr. GARNETT—You know a good deal of the work of the Birkbeck Institution; is this institution fulfilling the function of a higher commercial institution?—No.

Dr. GARNETT—How would you describe its position?—The Birkbeck Institution supplies incidental courses, and is doing very good work in lectures on commercial geography, but nothing in history. A great many clerks go for French and German. It can only be described as doing commercial work in giving instruction in French, German and geography and shorthand classes. The principal lectures on economics, but I do not think that the lectures have any commercial interest.

Dr. GARNETT—Then the work at the Birkbeck Institution need not be taken into account?—No.

Dr. GARNETT—What is the position of the City of London College?—Very much the same as the Birkbeck.

Mr. BOND—When boys leave your school do they go to business houses?—Some take up positions as clerks.

Mr. BOND—How much do they earn?—The lowest grade get from £25 to £30 and the highest from £35 to £40 a year.

Mr. BOND—Would not boys who had been trained at a commercial school have a much better chance of getting posts?—Yes, particularly if commercial men were convinced of the good done by the training. In time they would apply to the school for clerks.

Rev. C. G. GULL—Do you find that the system of book-keeping varies very much?—The general principles are the same. In a merchant's office the book-keeping would be very intricate.

Mr. KAHN said that he was of opinion that a good school of commerce would be of special benefit to the Board's intermediate scholars; many would be glad to hold their scholarships at the school. At present they remain until they reach 18 years of age at a secondary school or go to a technical college.

Mr. ORGAN—You mean we are driving them from the technical commercial to the technical industrial life?—Yes.

Mr. ORGAN—You think that the intermediate scholarships should be tenable at a commercial school?—Yes, the school should be in the City or some place near the City.

Mr. ORGAN—How many intermediate scholars are there in the Central Foundation School?—Eight; they are all studying under me directly.

Mr. ORGAN—You think it would be a good thing for some of the boys to go to an institution such as you mention?—Yes, rather than a secondary school, particularly those who are intended for business, whereas now, if the boys go to commercial business after having had a scientific training, their training is lost.

Rev. C. G. GULL—Is it more difficult to get a boy into a post at 18 than 16?—I believe it is at present. I also think that many rich merchants would be glad to send their sons to a commercial school after leaving the public schools, and that foreigners would attend the school to get a knowledge of English business methods, whereas now the latter get positions as clerks, and thereby produce a somewhat pernicious effect upon the English clerks. At Leipsic and Antwerp there are a great number of foreigners in the schools. The foreigners attending a commercial school would re-act with benefit on English boys, and it would be a good thing for them to be brought into contact with one another.

Dr. Wormell.

30th June, 1898.

Dr. WORMELL, headmaster of the Central Foundation School, said that with regard to commercial education he considered that the trade of the country might be classified under two heads, skilled artisans connected with the business of producing, and bankers, merchants and travellers engaged in facilitating exchange. Commercial education, in his opinion, included everything connected with exchange of manufactured goods and produce. The word "technical" had been used in a very restricted sense, principally in connection with manufacturing and producing. He thought the word "technical" involved the whole, and there was really an industrial technical and a commercial technical education. In London the latter was the more important side, because London was as a whole engaged in promoting the transfer and exchange of goods.

Mr. ORGAN—From your experience do you think at the present time we are giving sufficient attention to commercial education?—No.

Mr. ORGAN—Is there adequate provision for commercial teaching in London?—No; I have been asked to recommend a place of education for persons wanting to go into commerce, and I am at a loss to find one. There are a number of classes, but they are far short of what is really required.

Mr. ORGAN—Is there any means which you could suggest by which the secondary schools would be able to forward and expand this commercial education?—Yes, there are two or three ways. If a commercial school could be established so that secondary schools could work in connection with it, it would be an advantage. In the first place, there is no certainty that the best boys will pass from the schools into commercial life. The present curricula seem to draw them into other channels, and a schoolboy's record seems to be of very little service to him in getting a situation. If by any means we could make more of the achievements of the boys in the schools, and cause merchants, bankers and others, when seeking clerks, to take into account the boys' previous careers, it would help us in two ways. It would convince a boy that it was worth while to do well what he had to do and it would give him a stimulus to use the last year or two of his school life for the purpose of getting up commercial matters. I think the London County Council and the London Chamber of Commerce might do much to cause an improvement.

Mr. ORGAN—With regard to the latter remark, what way would you suggest?—The Chamber of Commerce has the means of keeping in touch with men of business, and it would greatly help if it caused the applications of candidates for employment to pass through a certain channel for enquiry into the careers of the candidates.

Dr. FORMAN—Is there not something of the kind in existence now?—Yes, it exists but in a very divided form. Taking my own school, for instance, over 200 boys per annum go out to commerce in direct answer to applications, but although I may use my judgment in telling a person who applies what a boy has done, I am not certain that he will consider his qualifications. A boy must possess the qualifications the merchant desires; but if I tell the merchant that the boy has gained scholarships and he is in the top form, the testimony ought to be helpful. It would be an advantage if merchants could be persuaded to operate through one channel and have the applicants' careers considered.

Mr. ORGAN—If a higher commercial school were established, would it have an influence on the curricula of secondary schools?—Yes; but I quite agree that we may specialise too early and do much harm.

Mr. ORGAN—When do you think boys might specialise?—At about 14. At this age boys frequently know what careers they are destined for, and they may specialise accordingly.

Sir PHILIP MAGNUS—What would you do with the boys who have not made up their minds?—You must hope that the boys will follow your advice and direct their studies accordingly.

Mr. EASTERBROOK—The point you wish to emphasise is the necessity for inducing business men to consider the boys' school careers?—Yes.

Dr. GARNETT—In France some who attend the higher commercial college have as their object in view the exemption from military service?—Yes, when merchants advertise in Germany they say a candidate possessing the exemption certificate will be preferred. It is looked upon as a standard of education, and the holder can get good employment.

Mr. ORGAN—You say that boys are sometimes enticed into channels other than commercial?—Yes, they obtain scholarships which encourage the study of subjects far removed from commercial life, and consequently they pass into professions.

Dr. GARNETT—Do you think that in the schools where scholarships are tenable there should be any very distinctly commercial subjects beyond history, geography and modern languages?—This will be answered by my second point. In ordinary secondary schools you have often a choice of subjects, some of which are more useful than others for boys intended for commercial careers. Up to a certain point I think there can be no doubt that modern languages afford as good a means of comparison of the merits of the boys as Latin, and are quite as educational. Secondly, in schools where boys leave at 16, it seems to me absurd for them to spend much time at Latin, and that modern languages should take its place. The third point is that we might recognise a certain number of schools having more distinctly commercial curricula than others, and boys whose minds are made up as regards the future should be induced to select such schools. This does exist to some extent. If you take a map of

London and get the boys to mark their place of residence you will find that the different schools draw students from all parts of the metropolis. The object of the parents in selecting schools at some distance cannot be on account of the small fees, because of the railway fare; they obviously have chosen certain schools because they appear to suit their requirements. I think we might take advantage of this fact and acknowledge the commercial curricula in a few schools. The London County Council has not appreciated that; it has endeavoured to make all schools alike. With regard to the system of grants some help might be given to the commercial sides of the schools.

Dr. GARNETT—We tried to make one school a commercial school, but the governors forced upon us the introduction of science.—The Charity Commission and the Science and Art Department are both alike in this respect.

Dr. GARNETT—There is no compulsion upon the scholar to attend any particular school?—No, but I have a strong feeling that the tendency of the Council's operations has been to make each school supply the wants of its own locality.

Mr. EASTERBROOK—On the whole you would not consider it best that the Technical Education Board should encourage scholars to attend the nearest schools?—Yes; but if you can get the boys intended for commerce together, it would be better. I fully appreciate the work of the Technical Education Board. It has considerably increased the status of 20 or 30 of the secondary schools. The schools have modified their curricula and added laboratories, but there has been a tendency towards making the schools resemble each other.

Mr. EASTERBROOK—Have not the boys and girls attending the schools an ambition to pass the intermediate county scholarship examination? And should not a course be arranged for it?—Yes.

Mr. ORGAN—With regard to the higher commercial school, I see you would fully recommend the establishment of a higher school. Have you any personal knowledge of the Antwerp school?—Yes; and of that at Leipsic.

Mr. ORGAN—Can you give us your opinion of the Antwerp institution?—Both in Antwerp and Leipsic the teaching seems to me to lift commerce to a higher level. There is no feeling that a commercial life is degrading; the tendency of the institutes is to give dignity to business. They give the best teaching possible in the particular subjects. The best teachers are procured, and the instruction can be had at a very low fee.

Mr. ORGAN—With certain modifications to suit London you think that an institution similar to the Antwerp school would be useful in London?—Yes; provided you do not establish it in South Kensington, or far away from trade. It should be in close proximity to the City.

Mr. ORGAN—Should there be on the governing body of the institution commercial men?—Yes.

Mr. DEBENHAM—Does not your statement that specialisation should take place at 14 or 15 clash with the opinion at Antwerp, where they think 17 is soon enough?—Yes, I was thinking of only a partial selection of subjects, excluding the purely professional subjects, as science of industries and geography and all its connections. You can begin with such subjects before a boy has done with school, but with regard to entering the commercial institute, I think 16 or 17 should be the age.

Dr. GARNETT—You would provide instruction at the secondary school for scholars between 14 and 17 years of age?—Yes. A bias is already given to scholars' education when they wish to take up certain scientific subjects thoroughly by arranging the curricula to meet their wants. The same bias might be given in the case of those who intend entering into commercial life.

Mr. EASTERBROOK—You speak of specialising at 14, but you would not have all schools alike, only some with a distinct leaning?—Yes.

Mr. EASTERBROOK—What do you mean by saying that students have a choice in sciences?—Students may take up any science in a general way without it having any reference to manufacturers' or chemical works. If you know a certain boy is going into a particular trade, you may give him a bent in a certain direction by the application of the science to the trade. When you know a boy has made up his mind as to what trade he intends entering, his curriculum should be modified accordingly.

Mr. EASTERBROOK—With regard to the intermediate scholarship scheme you think that if the Technical Education Board developed a commercial side it would be a distinct help?—Yes, and this development would help the specialisation of schools.

Mr. ORGAN—And after they have been through this training encourage them to attend the higher commercial school?—Yes.

Mr. EASTERBROOK—I have heard it said that boys are not made to work in secondary schools; is it your experience that the boys have enough or too little to do in secondary schools?—I consider that they have quite enough to do, and that there is already a too crowded curriculum.

Mr. John Bell.

30th June, 1898.

Mr. JOHN BELL, chairman of the governing body of the Wandsworth Technical Institute, and connected with the Orient line of steamers and F. Green and Company, shipbrokers, said that at the Wandsworth Technical Institute there were trade classes and also commercial classes, such as shorthand, book-keeping and modern languages.

Mr. ORGAN—Have you found these commercial classes well attended?—There are about 15 attending the French classes; the shorthand classes are also well attended; but the modern languages and the book-keeping classes are not so successful.

Mr. ORGAN—You would say that the trade classes are better attended?—Yes.

Mr. ORGAN—What students attend the shorthand classes?—Young men and women, the sons and daughters of higher mechanics and tradespeople, and some clerks.

Mr. ORGAN—Have you generally formed any opinion as to the deficiencies of the people who apply to you for commercial appointments?—There should be more attention to handwriting, spelling and arithmetic. They enter the firm between the ages of 15 and 17.

Mr. ORGAN—Where do the boys come from, secondary or elementary schools?—The secondary schools; we have none from the elementary schools.

Mr. ORGAN—Are there any other deficiencies you have thought of in regard to your clerks?—I have not found that in the City of London modern languages are of the importance that I see attributed to them. My experience is not in favour of them. The most important modern language is Spanish, but I consider that Latin is also commercially useful, as it gives better appreciation of the value of words.

Mr. ORGAN—Do you engage for your commercial work special men as heads of departments, or do the men in the office work themselves up?—In every case (one exception is the present secretary) vacancies in the departments are filled up by men in the office.

Mr. ORGAN—Have you inspected any schools abroad?—No, but I have read about them.

Mr. ORGAN—Have you formed any views as to whether one would serve any purpose in London?—I should like to see it in working order before venturing an opinion.

Mr. DEBENHAM—I quite agree with what you say as to modern languages being of little importance in London. Do you know the reason?—Our commercial relations, so far as Germany is concerned, are such that all correspondence can be carried on in English. There is a law in shipping observed by many countries, notably Germany, France, Norway and Denmark, which provides that on every vessel there shall be some one who can talk English. Spanish is important because of our South American trade.

Mr. ORGAN—Supposing one had left school at 17 without a knowledge of Spanish, and another with a good knowledge of Spanish, do you think the latter would stand a chance of getting a better situation?—He might, but it is not likely.

Dr. GARNETT—Do you not think that the Germans in acting as our correspondents gain an advantage over us?—Yes; a German can come to England and begin to trade at once, whereas an Englishman going to Germany to trade has first to learn the language.

Sir PHILIP MAGNUS—Supposing a youth wanted to enter a commercial house having relations with South America, at what age do you think he should enter?—At 16 or under.

Sir PHILIP MAGNUS—Do you think he would be much benefited if he received two or three years' higher training between 16 and 19, with a view to becoming a commercial agent or traveller in foreign parts?—He would be sacrificing his commercial experience for the sake of learning one or two things not of paramount importance. I think it would be better for him to go to evening classes. It is not advisable for him to remain at school until 19; it would be better to work in an office in the day and attend classes in the evening.

Dr. FORMAN—The office, then, is the best school after 16. He would be better disciplined in the office?—Yes. He would be better at 19 from a commercial standpoint.

Mr. ORGAN—Would he be better at 22?—It is very difficult to form an opinion. We have in our office one or two University men, and they are well fitted for their positions.

Sir PHILIP MAGNUS—They have had the advantage of a good mental training and can adapt themselves to the special circumstances of any particular trade?—Yes.

Dr. GARNETT—Apart from the rank and file, there are a few who require the higher education?—Yes, they are those who, having had a good general education before entering the office, are destined to become leaders in trade, having money behind them.

Sir PHILIP MAGNUS—I am in sympathy with the object of giving men advanced commercial instruction, but the monied men to whom you refer put their boys at an early age, about 16, to business, and then send them to a foreign office to get an experience of business in different countries. I have four or five cases in my mind in the United States, where merchants are sending their sons at that age to acquire business habits, and are not keeping them at college after 16. I do not know whether that is what you agree with?—I should keep my own son a little longer at school, say 17, and at that age send him abroad for a time. On his return I should place him in my own office to be trained in my methods.

Mr. ORGAN—Supposing there is some place where he can be getting a kind of intellectual training in commercial subjects, would you think it an advantage?—Yes, I think it would be wise to have the schools in commercial centres. It would be desirable to have schools, but the colleges have not gone in for commercial education, the degrees being given for professions, not commerce.

Mr. BOND—You say the book-keeping classes at the institute are not well attended. Do you think the book-keeping classes are of very great assistance to those actually engaged in commerce?—No.

Mr. BOND—What do you expect of your junior clerks at 16?—They rise up through the several departments. Beginning by copying, they proceed step by step until they become familiar with voyage accounts, bills of lading, measuring, &c.

Mr. BOND—What schools do they come from?—I cannot say. We have one from the Central Foundation School and another from the City of London School.

Mr. BOND—Does the one from the City of London School show any extra ability?—Yes.

Mr. BOND—Do you think there would be a better chance for boys who could conduct correspondence in two or three languages for a manufacturer?—Yes.

Mr. BOND—You would just as soon have a man who had gone through a University course as one who had gone through a commercial course?—A university man who entered college at 19 or 20 would be better than the commercial one at 22.

Mr. BOND—What would anyone coming to you do first?—Book-keeping.

Sir PHILIP MAGNUS—Is there a fear that in sending a man intended for commerce to a University he would, if he distinguished himself, prefer professional to commercial life?—There may be something in that, but many are sent to colleges for social reasons.

Mr. BOND—Have your two University men taken degrees?—No, they did not complete their period.

Mr. Armitage Smith.

30th June, 1898.

Mr. G. ARMITAGE SMITH, the principal of the Birkbeck Institution, said that he was a lecturer on economics.

Mr. ORGAN—How long have you been lecturing in London on economics?—25 years.

Mr. ORGAN—Do you think there is any demand for what one may call experts in commercial business?—There is in the interests of the country, but employers do not seek for experts. We want men who are capable of pushing commerce and opening up new markets.

Mr. ORGAN—Do you think there is a need for a higher institute in London?—There is an opening for something of the kind for commercial travellers.

Mr. ORGAN—What number do you estimate we should get?—I have not thought. All I know of the schools abroad has been gained through reading. There are men sent over to England who enter houses as clerks, attend classes and gain certificates, and afterwards go back. I think these are picked men. They come to gain information rather than earn a salary, and that is the reason why they may be had so cheaply.

Mr. BOND—How much do they earn?—I do not know.

Mr. ORGAN—Do you get many foreigners taking classes?—A very fair number. Some of them come to the English classes.

Mr. ORGAN—Do you think that if there were established in London such an institution as that at Antwerp there would be a sufficient number of students?—Possibly, in time. People are not sufficiently impressed with the need for such a school. They consider that the best information to be obtained is in offices. The popular belief is that young people can pick up everything in business.

Mr. ORGAN—Do you think foreign competition is overrated?—I have read many reports on the subject. I think that some countries are progressing a little faster than we are, but we are by no means behind.

Sir PHILIP MAGNUS—You think that the rate of acceleration will decrease?—Yes. Germany and Switzerland have no opening for trade in colonies. In English colonies the German trade to ours is in the ratio of 1 to 20. Neutral countries are making progress, but that is due to their knowledge of languages. It is a necessity for Germans to speak several languages, because their country is surrounded by other countries. The Germans are more painstaking than the English; they adopt the currency of other countries and send out their circulars and labels in different languages.

Dr. GARNETT—You believe that England will not get behind other countries, but would not a commercial education make our position safer?—The need for commercial education is not so great as for technical education.

Mr. ORGAN—Do you think that, if commercial education had been in vogue 20 years ago, other countries would have gained so fast on us?—I think we might have longer retained the first place. Other countries are merely improving upon their old position, but they are not getting ahead of us.

Mr. BOND—The bulk of your students are commercial clerks and bank clerks?—Yes.

Mr. BOND—What is their object in attending the classes?—To improve their position in life. There are about 500 attending the French, 150 the German, 200 the Spanish, and 250 the book-keeping classes. There are also classes in economics and commercial law. The teacher of the Spanish class is a clerk.

Mr. BOND—Have you any complete course of commercial education?—No.

Mr. BOND—Do you think that, if an organised course were instituted, you would get students to go through the course?—No more than now. If they were organised, I do not think they would draw any more students. At present the students can select their own classes.

Mr. BOND—Is there any practice afforded in corresponding in different languages?—No.

Mr. DEBENHAM—Do you find that Englishmen teach foreign languages as well as natives?—No. I have Spaniards who are prepared to teach all the principal foreign languages, but very few English commercial men can do so.

Mr. BOND—The clerks attend the classes with the object of learning French and other languages and subjects in order to secure promotion?—Yes. There are several Civil Service clerks attending the classes.

Dr. GARNETT—If a higher school granted a diploma, do you think it would in time have a recognised value in the city?—Yes, but people will want to know what the school is going to be.

Mr. EASTERBROOK—You said you had a great many German students; what classes do they attend?—They attend all classes, but principally the economics class, because it gives them some information on exchange, &c.

Mr. SEBASTIAN—I gather that upon the demands of the employers will depend the success of the school. How would you propose to create a demand?—I do not know. Employers might later on see the need for higher education, but whether they will be willing to pay higher salaries I cannot say. The reason why commercial geography is not a success is because there are no certificates to be gained and nothing to be brought before the notice of the public.

Sir PHILIP MAGNUS—If a man knew he was going out to South America, he would like to know commercial geography?—Yes.

Mr. BOND—If you offered a connected syllabus of commercial instruction, would it be better?—I do not think so. One student would want one subject and another a different one, and so on. I quite agree with you that it would be an advantage, but they would not take up a course unless there was a certificate to be obtained.

Mr. BOND—You do not think it is too hard on a person after working in the daytime?—No; office hours are being shortened.

Dr. GARNETT—Is there not a sufficiently large demand for a commercial school to meet the wants of those who, being the sons of business owners, have no occasion to seek remunerative employment at an early age?—Perhaps so.

Sir J. Blundell Maple.

4th July, 1898.

Sir J. BLUNDELL MAPLE, a member of the London County Council and head of the firm of Messrs. Maple and Co., Tottenham-court-road, said that his best business men were those who came from charity schools, such as Spurgeon's Asylum and the Orphan Working School. These boys were brought up to discipline and had a really good sound education, *i.e.*, they could write legibly and spell well. They were now being taught shorthand in these schools. A slight knowledge of modern languages was important. Before the boys were admitted to the firm, they had to undergo an examination conducted by the staff. The accepted candidates lived in the house, and, in addition to board and lodging, received as pocket money 15s. per month. This system was also in vogue at Messrs. Debenham and Freebody's and at Messrs. Shoolbred and Co's. It was a difficult matter to get boys from these orphan schools, the demand being so great. The boys came at 15 or 16, and were able to work up to any position. In fact a great many of the important men in the firm had come from such schools; they could be thoroughly relied upon in consequence of the early disciplinary training. A slight knowledge of geography was necessary, but the higher technical education for this class of man was not, generally speaking, the right kind of education for business. There were plenty of clerks to be obtained at 25s. or 30s., but they were generally useless; whereas a boy brought up to discipline in a commercial house learnt all the subjects necessary.

Mr. ORGAN—Would you tell us directly the kind of work a boy would do on entering?—He looks after the post, goes messages, and by degrees removes to the correspondence office, thence to the counting house to get accustomed to book-keeping, and thence is drafted into each branch of the business in turn. Some leave the counting house to become salesmen in the shops.

Mr. ORGAN—Are all the vacancies for heads in the chief departments filled from your own staff or are the heads obtained from outside?—Nearly all of them are filled from the present staff. As an instance, just recently a new position was made which necessitated nineteen moves upwards.

Dr. GARNETT—Am I right in concluding that you take boys from charity schools because they have had less freedom?—No; but the boys from these schools are the best. I think that the managers of such schools would be suitable people to interview. There is another class of boys, *viz.*, mechanics, which come under commercial education. Men are taught now at schools to become carvers, but we do not want them; we will teach them their trade. We prefer to take them at 15 or 16 and train them ourselves. Immediately a boy who considers he knows more than others is brought into the firm, ill-feeling is aroused. The men should be allowed to attend evening classes after working in the shops. One great drawback is the great need for apprenticeship. Owing to the trades unions we cannot in some trades employ more than one boy to twelve men. The exception is in the upholsterers' trade, where we are able to keep up the system of apprenticeship. The premium for an apprentice to the upholstery or joinery trade is £15, which is returned to the apprentice if his conduct is good—at the end of the third year £7 10s., and the remainder at the end of the fifth year.

The outdoor apprentices receive—

3s.	per week for the first year.
5s.	second „
7s. 6d.	third „
10s.	fourth „
£1	fifth „

When these apprentices are out of their time they earn from 45s. to 55s. per week, or 10½d. per hour. Any number of these men can get employment. In some cases they set up in business for themselves.

Mr. ORGAN—Suppose those boys had had a good training up to 15 years of age in drawing, &c., would not that be of assistance?—As regards the upholsterers it would be an advantage if they were able to draw curtains, but we would rather educate them ourselves.

Mr. ORGAN—Which kind of apprentice do you find you can more easily get, the indoor or outdoor apprentice?—We never have any difficulty. The boys who are taken in the house have an equal chance with those outside, whether mechanics or not, of rising.

Rev. C. G. GULL—You think it is a great mistake to send them into the offices?—No, there are great prizes in both.

Sir OWEN ROBERTS—You do not take outside men as salesmen?—Yes.

Mr. BOND—I think you said that some boys should have a knowledge of languages; what would be the advantage of a modern language in your business?—We have a house in Paris, and we are always wanting to send workmen and clerks abroad. There would be work for many English workmen in every large city. Those who had a knowledge of languages would receive higher wages than those who worked at home.

Mr. BOND—What language is the most useful?—French; German comes next.

Mr. BOND—Do you carry on business all over the world?—Yes.

Mr. BOND—Do you have a language correspondent?—We cannot get a man to speak more than two languages. We have them to speak Spanish and Italian.

Mr. BOND—Where do they learn Spanish, &c.?—I cannot say.

Dr. GARNETT—Are there any schools which endeavour to keep boys up to 18 and teach them trades?—No.

Dr. GARNETT—As far as technical education has gone in London, there has been nothing done against the interests of the boys?—No, but nothing for their assistance.

Dr. GARNETT—Are the evening classes any good?—Yes, the evening classes do good, but to attempt to teach boys trades in the schools is not at all advantageous.

Dr. GARNETT—It does not exist in London?—I have seen boys learning wood-carving.

Dr. GARNETT—An upholsterer recently visited some classes, and saw the students doing different work, such as cutting out patterns, and suggested there should be other classes held?—It would only be necessary to have these schools in the West-end.

Dr. GARNETT—In cases where the foremen are unable to teach boys every branch of the trade, is it not an advantage for them to attend classes to get a knowledge of every branch of the trade? —Yes.

Dr. GARNETT—With reference to the commercial side, what is the best kind of instruction for clerks, &c.; should it be confined to modern languages or economics?—They learn book-keeping by far the best in the office. Shorthand and modern languages are useful, and anything which will increase their knowledge.

Dr. FORMAN—Is it the case now that in some instances the boys are not taught their trade? —Yes. Some time ago the work was done by piecework, and was let to the men for a certain amount. These men had boys and young men to do their rough work. These boys learnt more of the trade than they can possibly do now, owing to the introduction of machinery.

Mr. ORGAN—You have dealt rather with the young boy coming into the firm. Have you seen or have you any personal knowledge or experience of the large commercial schools abroad?—No.

Mr. ORGAN—Do you think there is any need for the establishment of an institute for training men who are bound to become owners of business owing to their family connections? At Antwerp there is a large institution in which they train for commercial life, men and boys leaving school at 16 or 17 and remaining for about three years. They are taught modern languages and business customs of countries, &c. They also have a system of dealing one with another. There are great numbers of these schools abroad. Do you think that anything of the kind would be useful?—I do not think it would answer in England.

Sir OWEN ROBERTS—Is there not some danger of the son of a capitalist being unable to learn the business?—He would learn better in the office than anywhere else.

Sir OWEN ROBERTS—How are they to learn the business?—We have had men in the house, one or two of whom are now principal directors, one at Paris and the other in London, who learned the business in going through the offices.

Mr. EASTERBROOK—You never find any necessity to take young men at 19 or 20 with a superior education?—We cannot do with them.

Dr. GARNETT—Do you never want men to open up foreign markets?—No, we have them in the firm.

Sir OWEN ROBERTS—A successful merchant never looks forward to his son to follow his business?—No.

Mr. DEBENHAM said that boys who had been to Universities might enter business, provided suitable positions could be found. They could not begin at the bottom.

Sir BLUNDELL MAPLE endorsed this statement but said that the best commercial school was the business itself. He himself left King's College school at 15½ years.

Dr. GARNETT—You have seen the consular reports calling attention to necessity for opening up foreign markets. How is this question to be dealt with?—I think in some cases it is owing to the want of knowledge of foreign languages on the part of the commercial men; and also I consider the consular work has been very badly done, no assistance being given to manufacturers.

Dr. GARNETT—There would be room for a school to train for the consular service?—No; boys must go to work before 16. Houses like Shoolbred's would form good schools for the Consular Service.

Dr. GARNETT—In the engineering trade engineers are on the lookout for young men leaving the Central Technical College and secure them for particular posts?—I think they must be very few. Merryweather does not engage this kind of young man. He believes in attendance at evening classes.

Dr. GARNETT—The professors find there is a great demand for them at the Central Technical College. Are there no vacancies in your firm for other similarly trained men?—No. As far as the training of young men is concerned, we should like more apprentices.

Dr. GARNETT—I think you said you liked the boys from charity schools best?—Yes, because of the discipline. They are more self-reliant, and easier to deal with.

Mr. DEBENHAM—Do you find the tendency is to take the boys older?—No. Very little above 15.

Mr. DEBENHAM said that in his firm two kinds of boys were admitted—one from the charity schools, and the other at 18 years of age, who had to pay premiums up to £100. The latter will eventually take the leading positions.

Sir Bernhard Samuelson.

14th July, 1898.

Sir BERNHARD SAMUELSON, Bart, M.P., said that with regard to a higher commercial college, the time was hardly ripe for its establishment, for two reasons. In the first place he thought that England had still much to do in regard to secondary education. In the second place he did not think that the mind of commercial men was ripe for such development. He was therefore opposed to the establishment of a higher commercial school at the present time, *i.e.*, a commercial day school which would form a branch of a university. He believed that what was being done by the School of Economics was useful to commercial men, and might be enlarged very much for their benefit, but he did not think that youths were prepared to take advantage of an organised commercial school, or that if the school were established, the sons of merchants who were destined for the higher commercial posts would take advantage of it. He agreed with Mr. Brigg in thinking that a school of that sort would be useful for training teachers, but did not know whether it was the business of the London County Council to establish a school for teachers who ultimately would be spread broadcast all over the country. He was not sure that a young man who had had a good secondary education, such an education as he thought a boy ought to have, who was going either into commerce, or the legal or medical profession when he arrived at 17 or 18, could not employ his time better during the day than in a

school. A young man of ambition, who wanted to get on and was not afraid of work, could not do better than attend evening classes, working at those subjects in which he was deficient, but his days should be occupied in an office or bank rather than in a school.

Mr. ORGAN—I gather that in your opinion there is no demand for a commercial institution of university rank?—No.

Mr. ORGAN—That there is no demand is because the people have not been educated up to the idea that such a thing is possible; in other words, in this particular case we should create the supply rather than the demand?—I will give you my own views. I think you will give me credit for having studied the question, and for being as much in love with technical education as most people. Notwithstanding this, my own opinion is against your proposed higher commercial school, and in favour of the office. I do not think you would say I am one who is prejudiced against technical education. Notwithstanding my sympathy with technical education, I would not advise a young man intended for commerce to remain at a commercial school until 22 or 23, because I think that he would do better in a University, acquiring a general knowledge, and coming into contact with all kinds of men.

Dr. GARNETT—You do not think that there is such scope for the training of commercial men as there is for the training of electrical engineers?—No. I mentioned the other day at the London Chamber of Commerce that the merchants at Hamburg are opposed to the commercial school at Leipsic. They have no confidence in it. They say—“the science of trade is a purely empirical science, which cannot be learned in the school, but can only be learned thoroughly in practical life.” These merchants are practical men of the highest class.

Dr. GARNETT—Do you not think they are making the same mistake as the engineers made, viz., thinking that it is intended that the college should take the place of the workshop instead of being supplementary to it?—Yes, but what they say is, and I agree, that you cannot get the same advantage in a school as compared with what you can get in an office. You are endeavouring to bring about a comparison between pursuits based upon science and those based upon practice.

Sir PHILIP MAGNUS—You would say that there is no analogy between engineering and commerce?—No. There is not that pure science in commerce which there is in engineering. I do not say the knowledge of history of trade and knowledge of economics is not of great value.

Mr. EASTERBROOK—Do you not think the instruction is good as an after school course?—Yes, but not as a day course. I am anxious that young men should attend evening classes, and be taught by men of the first rank.

Dr. GARNETT—One of the great hindrances in the evening schools is the dearth of qualified teachers. So that we should be doing well if for five or six years we made a training school for teachers in the evening schools?—Yes, and also for the secondary day schools. But the number of men who would attend the classes and for whom the school is principally intended would be infinitesimal.

Dr. GARNETT—We have said that the chief students would be the teachers?—Yes, I quite agree with that. The school will be for teachers, who will be of use in secondary schools and in evening continuation schools. You would be able to train teachers of modern languages, political economy, and commercial geography. In secondary schools I do not mean that you should teach geography with a direct aim at commerce, but in such a way as not to ignore commerce. Taking the geography of Australia, for example, I should like a boy in a secondary school to be taught that in 1837 only a few bales of wool were exported, and that all the finest wool came from Prussia, whereas now the Australian wool trade is enormous owing to the development of the Australian colonies. This kind of information would be of use to the merchant, lawyer or doctor, as it would develop the mind.

Mr. EASTERBROOK—You would not approve of teaching the modern methods of advertising?—No. You must bear in mind that commerce includes a number of grades, and it may be useful in an establishment that there should be some young men who should understand these branches, but they should not come in a course of general education. I mean, that for a young man who is to take a high position in commerce, law or medicine, a secondary education of a high character is a necessity, and that that education should be the same for all. As regards the higher education, I believe the school of the kind contemplated will be useful for training teachers, especially those for evening continuation schools and evening schools of the type of the School of Economics, and that, if established, it will be attended by very few young men intended for a commercial career, because those who have had a good education will consider they can learn more in an office if their time is limited, and if it is not, they will go to a University.

Mr. SEBASTIAN—Do you consider that there are existing agencies through which a young man who is to take a high position can get the knowledge useful to him?—Yes. I may add that, if the young man has time to spare, I would prefer his going to the Continent or to the Argentine Republic to perfect himself in languages.

Sir PHILIP MAGNUS—Do you think he had better spend six months in three different countries rather than 18 months in one place?—No, the time should be spent in one office.

Mr. SEBASTIAN—Could he not spend 18 months at school and 18 months abroad?—Yes, but he should go to Oxford and not to a commercial school.

Sir OWEN ROBERTS—Why should he be sent to Oxford?—Because of the social surroundings.

Mr. ORGAN—With reference to the Antwerp Institution, we have heard that it is doing well and is very successful. Why is it that in England young men should not attend?—I was taken to task by Professor Layton for my remarks at the meeting of the Association of Technical Institutes. He quoted the success of the Antwerp School. I asked him whether he could name any manufacturers or merchants in a high position in Belgium who had been educated at that school, and he gave me no answer. I do not believe in the school. It is attended by people of all nations who wish to learn French while learning something of commerce. At the meeting at the London Chamber of Commerce, a gentleman from Liverpool gave his experience as a scholar in a Dutch school, in which the plan was to carry on fictitious commercial transactions. The system is ridiculous, and the time is absolutely thrown away.

Mr. SEBASTIAN—Is there any institution where a young man can get all the instruction he requires without having to go from place to place for little bits of information?—He would get all the information he requires in the office, assuming that he has had a good secondary education before entering.

Mr. John Brigg, M.P.

14th July, 1898.

Mr. JOHN BRIGG, M.P., vice-chairman of the Technical Instruction Committee of the County Council of West Riding, said that a scheme for commercial instruction was in vogue in the county, which included instruction in foreign languages. [Papers relating to the scheme were laid upon the table.]

Mr. ORGAN—Can you tell us what is being done in the way of commercial instruction?—First of all, I may say that the West Riding is a manufacturing district, but there is a large number of mercantile people, including some German firms. These firms employ German clerks only. The clerks work for a very small salary. With regard to the manner of supplying other firms with goods, my notion of this matter is that the need for a commercial training has arisen recently owing to the extensive distribution of goods. I remember when the merchants came for the goods, but the practice of sending samples has removed the necessity for personal visits to a great extent. This system has grown to such perfection that the purchaser need not see the goods before purchasing. He supplies the wholesale firm with a list of names and addresses, and the goods are sent direct to the retailers. There must be a discrimination between clerks and travellers. As far as clerks are concerned, there are plenty of them. The German clerk can do nothing beyond translation from one language to another; he knows nothing of the technical side of business.

Mr. ORGAN—If these clerks had the advantage of a better technical training in a college, would there not be suitable positions for them?—With regard to the German clerk I do not think so; but with regard to the English clerk I think it would be better, as he aspires to something higher than a clerkship.

Mr. ORGAN—With reference to your own scheme, is it the idea of the Committee that you are training the clerk, or something beyond?—We commenced in 1891, but we do not feel that we have gone very far. The training is the same for some time for all classes; afterwards we specialise. The clerks have no intention of remaining as clerks, and consequently wish to get some technical knowledge.

Dr. GARNETT—Does the line of separation lie between the office clerk and the buyer?—Yes.

Dr. GARNETT—You do not require in your part of the country clerks who are able to deal with foreign trade or shipping?—No; we have not dealt with that in the scheme. Fifty or one hundred clerks would cover the whole district.

Dr. GARNETT—I suppose the German trade of a Bradford house would be limited in its character?—Yes.

Dr. GARNETT—Do you make it part of your teaching to take up wools, the history, markets, qualities, and so on, and give a technical knowledge of them?—No; this instruction belongs to the technical classes. A salesman must know something of the goods he is selling, in order to describe them to the customers. With regard to the traveller, I consider that a man, to be competent, must have had a good education, a certain knowledge of the language and the habits of his customers, and have some technical knowledge of the article he is selling. In the technical classes there are men who are not in the trade, but who have taken the courses in order to be in a position to check the quality of the goods they are purchasing.

Mr. ORGAN—You have nothing higher than this scheme?—No. Boys who wanted training came to us, and we arranged the instruction according to their requirements.

Mr. ORGAN—Where do these boys come from?—Elementary schools.

Mr. ORGAN—Are there any amongst them who are likely to become leaders in commerce or partners?—No.

Mr. ORGAN—Do these boys go from you to the various offices or are they working in the office already?—Yes, they are in the office in the daytime and they study in the evening.

Mr. ORGAN—Had you any difficulty in obtaining teachers for doing this work?—Yes, this was the greatest trouble, and we had to train them ourselves. There are classes for teachers in the Yorkshire College. They are trained by the professors. Some of them get scholarships, and are sent abroad to learn the languages.

Mr. ORGAN—How do you find teachers for teaching the principles of commerce, &c.?—We compel them to teach commercial history, but we find that the teachers will ignore the commercial side and teach the ordinary history.

Dr. GARNETT—Are these trained teachers or are they commercial men?—They are teachers who have been taught the subjects relating to commerce.

Dr. GARNETT—The higher commercial institute for training teachers does not exist in this country?—No.

Dr. GARNETT—You have to be content with the training by different professors? No one teaches commercial science?—No, we award scholarships and allow the students to attend any suitable institution they choose.

Mr. ORGAN—You have found there is a need for trained teachers in this particular branch of work?—Yes.

Sir PHILIP MAGNUS—Have they considered the desirability of making any alterations at the Yorkshire College to suit your requirements?—We should have to guarantee them a certain number of students or give them a grant. There is an agricultural department to which we give a grant.

Mr. EASTERBROOK—Why do Germans come over as clerks?—They have no ambition to be anything else. There is a feeling amongst some that the idea of their coming is to take away our trade, but I do not think that is so. Germany is overcrowded with them.

Dr. FORMAN—Is not the trade at Bradford growing less because of the Germans?—No.

Sir PHILIP MAGNUS—There is a large trade at Bradford created by Germans, which remains controlled by them?—Yes, but there is no increase in the number of firms.

Mr. ORGAN—You have heard of the large institutions of university rank abroad. Do you think there is room for such an institution in London?—I think there is, but more for the purpose of teaching teachers. Possibly a few of those people who are likely to be owners of business houses might attend.

Mr. EASTERBROOK—Where do sons of manufacturers get their training?—In the factory itself.

Mr. ORGAN—Do you think they would send their sons to a college if one were established?—Yes. The real difficulty is the extreme technicality of every man's trade.

Mr. ORGAN—However technical a trade may be, would it not be an advantage to a young man to take a course on commercial law? Would it not be a good thing to have some training?—I am afraid we are expecting too much from these things. There is no harm in it; he might avoid mistakes.

Dr. GARNETT—In teaching them commercial law we do not expect them to be able to dispense with legal advisers in the event of a dispute, but only to be less likely to make mistakes?—Such teaching would be useful.

Mr. ORGAN—Some information on dues and customs would be an advantage?—To some extent. In different countries there are different systems, and it is a question whether it is worth while to get up such a wide subject on the chance of a little of it being necessary. The line we are taking is to train the boys up to the secondary school stage; if there were a college, we would send them to it.

Mr. ORGAN—You really feel that an institution of that kind is worth trying?—Yes, we shall carry it out as far as we can, if no other county tries it.

Mr. Brigg read the following from a book respecting the requirements of a business man—"A business man requires a thorough knowledge of the goods with which he is dealing and some knowledge of the science of the trade and methods of buying; he should understand foreign trade journals, compile statistics relating to his trade, be well acquainted with business documents, bills, &c., and have some knowledge of commercial law; he should also be proficient in languages and book-keeping, and should possess an elementary knowledge of banking and finance." With these expressions of opinion Mr. Brigg quite concurred.

Dr. GARNETT—Do you not think it is far too ambitious a scheme for secondary schools?—No, we do not think so.

Mr. DEBENHAM—You find more difficulty in getting teachers for the commercial side than the technical side?—Yes. I may say that in my district there are twenty-nine firms making washing machines, whose principals were formerly mechanics. I think that, if a higher institution were established, the County Council of West Riding would award scholarships which would be tenable at this higher college, and it is quite possible other counties would do the same. With regard to the establishment of the college, we do not mind who carries it out provided we can make use of it; but if there is not one carried out shortly in London, I daresay we shall try to prepare a scheme for the establishment of one.

APPENDIX II.

Report of Mr. Fishbourne's interviews with Employers.

1. Mr. Gerard Van de Linde, accountant, of 50, Gracechurch-street.

The minimum age of boys entering his office is 16, and the requirements are the essentials of general education, viz.—spelling, writing, shorthand, arithmetic (especially quick casting and decimals), book-keeping, commercial geography, German, French, elementary Latin, and shorthand as a training in correspondence. In writing from dictation a grasp of the subjects dealt with is obtained as well as the views of the employer thereon. With reference to the alleged diversity of methods of book-keeping, a boy who had once mastered the general principles and double entry could decipher any book. In a paper read by Mr. Van de Linde in 1895 on "the Articled Clerk" the following paragraphs occur—

You will do well to lose no time in becoming a member of your local Chartered Accountants' Students' Society, making good use of the same, too, by attending the lectures, debates, discussion meetings, and classes on book-keeping, accounts, auditing, legal (such as bankruptcy, company law, receivers, &c.), and other kindred subjects.

It is by this time a well-recognised fact that book-keeping is not generally taught at school, and that what passes there for book-keeping is nothing of the kind; you are therefore fortunate if you have never gone in for the spurious article, for then you have not to unlearn it prior to mastering the genuine one. In the ordinary routine of the work incidental to a chartered accountant's office, book-keeping forms a most important factor.

Do not forget, while you are thus acquiring a thorough knowledge of book-keeping, to keep up your practice in the four elementary principles of arithmetic, viz., "addition," "subtraction," "multiplication," and "division," particularly the first one, "addition," though not to the exclusion of the remaining three. It is certainly imperative, if you wish to get on, that you thoroughly master "addition" (or "casting," as it is generally called). It is no doubt irksome at first, but that cannot be helped; you must just go on persevering until your power to cast is absolutely infallible, and you yourself are conscious that it is so. You will, I am sure, in after years, thank me for pressing this simple necessity so strongly upon you.

I have my doubts whether upon leaving school your handwriting is what it should be. I fear, on the contrary, that it is none of the best. Take, therefore, every opportunity of improving it; for so soon as you can write well, so many opportunities open out to you of taking up good responsible work which, while you continue to write badly or indifferently, are simply debarred from you. Look well to your spelling; when in doubt a small pocket dictionary comes in very handy. It is, I am sorry to have to say, a recognised fact that, as a rule, both handwriting and spelling are shamefully neglected at school, which fact you have doubtless since found out for yourself.

Stenography (or shorthand). I always feel it incumbent upon me to give this important subject a very prominent place when addressing students. All my best and most reliable articulated clerks have not only been good writers and good spellers, but also good shorthand writers too. I have only just been reminded by a former articulated clerk how invaluable shorthand has always proved to him both in the office and privately; he tells me also that he found it particularly useful when he was preparing for his examinations, as it enabled him readily to take notes on many points which he might otherwise have passed over and lost. A man who is master of these simple accomplishments, and who can also cast expeditiously and correctly, has the ball at his feet, and is bound to make his mark, outstripping his colleagues who, perchance, look down upon or neglect acquiring for themselves such simple but all-important essentials; one advantageous reason, too, being that in order to acquire all these attainments (especially shorthand) you must undoubtedly bring to bear, and that in a very marked degree, the exercise of indomitable painstaking perseverance and pluck, for which you will eventually reap the full and well-merited reward for thus putting these powers into practice.

Acquire, as soon as you can, the habit of identifying yourself with your work and taking a real interest in it. You have no idea how this will relieve the monotony of its routine, and get you to understand and fully enter into what you are engaged upon, thus enabling you to unravel and clear up many an intricate and obscure point which a more casual observer would most likely pass over altogether—to find out later on that by his indifference and nonchalance he has simply missed his opportunity, and that another has been deputed to go over his work again and reap the "*kudos*" of what was fairly within his own grasp, but which he thus allowed to slip by. This leads me to warn you, when you are thus engaged, not to be for ever fidgetting or looking at the clock as if it were time to leave off and go.

The languages are Latin, Greek, French, German, Italian, and Spanish. I do not know which of these you may have chosen in your preliminary examination, but I would certainly hope they have been both French and German. Each of them is so useful in our profession that I really am at a loss to which of the two to give the preference and therefore recommend them both. If, however, you are not yet master of *both* these languages, I certainly strongly recommend you to lose no time in becoming so without a moment's delay, so that this may not interfere with your preparation for your intermediate examination a couple or so of years later on, when all your spare time will be fully absorbed upon the all-important work of reading up for it. I press this point upon

you, as you must remember that foreign clerks come over to this country, thorough masters of the current modern languages (English included), and, if you do not mind, are apt to become your powerful competitors.

The following are the subjects of the examinations of the Institute of Chartered Accountants of England and Wales.

Preliminary examination.

Compulsory subjects.

- { Writing from Dictation.
- { Writing a short English Composition.
- † Arithmetic.
- † Algebra, to Quadratic Equations (inclusive).
- † Euclid (the first four books.)
- { Geography—Great Britain and Ireland and the Turkish Empire.
- { History of England—B.C. 55—A.D. 1886.
- Book recommended :—*Gardiner's "Outlines of English History"* (Longmans, 2s. 6d.)
- Latin, Elementary.

Optional subjects.

Two subjects to be selected by the candidate, one of which at least must be a Language.

Subjects for intermediate examination, and subjects for final examination and examination equivalent to the final.

<i>Subjects for Intermediate Examination.</i>	{	Bookkeeping and Accounts (including Partnership and	}	<i>Subjects for Final Examination.</i>
		Executorship Accounts—2 papers).		
		Auditing.		
		Rights and Duties of Liquidators, Trustees and Receivers.		
		The Principles of the Law of Bankruptcy.		
		The Principles of the Law relating to Joint Stock Companies.		
		The Principles of Mercantile Law.		
		The Principles of the Law of Arbitration and Awards.		

† Special consideration will be given to the results of the Examinations in these subjects.

After the subjects named above have been dealt with, then should come the higher commercial school, but the teaching must be practical, the course must last not longer than two years, beginning at the age of 15, with a curriculum similar to that of the foreign schools. Such a school would do away with the superiority of the foreign clerk, owing to his being "qualified for work" on leaving school. Mr. Van de Linde had had many applications from friends for permission for their sons to spend two years in his office, and he had been asked by the Foreign Office to take an Indian in the same way. This seemed to show a want which the higher commercial school would meet.

With reference to the relative attainments of the English and foreign clerk, Mr. Van de Linde referred to a letter from which the following is an extract—

"I have, in the course of my business, had a large insight into the working of foreign offices managed by foreign clerks, and I am sorry to say my experience is in their favour to the prejudice of *English clerks*, though I certainly prefer the *latter*, and have them in my office. Foreign clerks, more especially Germans, are *apt* scholars, and have French, English, German, and other languages at their finger ends, and can at once turn this knowledge to account, not only as *expert* linguists, but as perfect and reliable correspondents. They seem to be wedded to their work, and to give their whole heart to it as the *one* aim of their life, whereas English clerks somehow have a hankering for shorter hours and longer holidays—this especially in *early days*, when fresh from school. A German fresh from school is qualified for work; an Englishman, on the contrary, is only a learner, for what he has acquired at school seems to be of no earthly use to him in an office for practical purposes."

German clerks identify themselves with their masters' interests, and work long hours for low wages. In Germany French and English are compulsory, and there is talk of making Russian compulsory also. It is the German, Dutch, Swiss, Norwegian, Swedish, and Danish clerks whose competition we have to fear. Foreign handwriting is bad, and in this our clerks ought to have the advantage.

In a paper read in 1892 called "Secretarial" Mr. Van de Linde wrote—"The primary requisites of a good secretary are a sound liberal education, with an intimate knowledge of at least one language, book-keeping, and shorthand (which is one of the subjects of the Foreign Office examination), ability to write well, legibly, and readily, and to express the views of others as naturally as if they were his own."

2. Mr. Walter Emden, architect, of 106, Strand, a member of the Council.

Boys who offer themselves for employment are sadly deficient in spelling and writing. They do not recognise technical words used in dictation, and instead of enquiring put down some word having a similar sound. The feeling of business men is that the education of the present day is deficient for the purpose of those intended for a business career, but it is doubtful whether it would be better to extend the old or create new educational agencies. Some of Mr. Emden's clerks have attended evening classes with good results. There is, of course, a great difference between the requirements of professional and business men.

3. Sir Whittaker Ellis, estate agent.

The usual age at which boys enter the employment of Messrs. Farebrother, Ellis and Co. is 16. They may be classed under the following heads; messengers who sometimes become draughtsmen, general office clerks, assistants in the surveying department (land and buildings), assistants in the auctioneering department, who have to draw up particulars and descriptions of properties and make inventories, and shorthand writers. The defect in the education of boys intended to become estate agents and auctioneers is due to the absence of schools between the Board schools and the public schools. The Board school boy is insufficiently educated and the public school boy unsuitable. It is not possible to find out a boy's proclivities early enough to enable him to specialise with any advantage, and therefore what is required is a sound general education carried on to the age of 16, at which age he should go into business. The dead languages, drawing, Euclid, history (ancient and modern), are very important subjects. Where, owing to the business in which a boy is engaged, modern languages are essential, dead languages may be dropped, but not ancient history. After a boy is in business it is desirable that he should attend evening classes. Among shorthand writers there is a great want of general knowledge, and this renders them less efficient.

4. Mr. E. Bousfield, auctioneer, of 99, Gresham-street.

Mr. Bousfield is chairman of the London Orphan Asylums, where it is sought to give to boys between the ages of 7 and 15 a commercial education, although they are hindered by the necessity of preparing for the Cambridge local examinations and the examinations of the Department of Science and Art, in order to earn the grants. These boys, who go straight into business, are taught reading, writing and arithmetic, shorthand, typewriting and geography, and how to make "bills of parcels." When a boy is intended for commercial life his education should stop at 15 years of age. If he has then had, as he should have had, a sound general education, with particular attention paid to the three R's and one language, he can pick up his commercial knowledge as fast as will be required while working his way up (as he must) from the bottom. Commercial theory ought not to come before practice, and there is little use in playing at business, but examinations and evening classes are of service. To make a good clerk time is required and patience on the part of the employer. A boy who has had a commercial training after 15 may possibly command a better salary, but will not be so useful to his master. It is undesirable to have someone coming into the office and lording it over those who have worked up from the bottom, and perhaps thinking he knows more than his master.

5. The Right Hon. Sir John Lubbock, Bart., M.P., F.R.S., a member of the Council.

As far as commercial employes are concerned, secondary education is too academic, and should be supplemented by the teaching of commercial science and foreign languages. A satisfactory secondary education (which does not at present exist) thus supplemented, and with certain schools, where out of the way languages such as Chinese and Japanese can be learnt, will suffice to meet present wants, and although Sir John Lubbock is not prepared to say that a commercial school is not wanted, his opinion leans to the perfecting of existing agencies.

6. Mr. Alfred Hoare, banker, of Fleet-street, a member of the Council.

Messrs. Hoare's bank is an old-fashioned private bank with no discount or foreign business, and all that is required of clerks is reading, writing, arithmetic, some manners and a little intelligence; or, in other words, a thorough elementary education.

7. Mr. A. S. Hervey, of Messrs. Glyn, Mills, Currie and Co., bankers, of Lombard-street.

English secondary education is defective, and does not leave its mark like the secondary education of the German. It must be more practical, and the knowledge imparted must be looked upon by the boy as the tools of his trade, to be kept always ready for use. The Board School education appears to have a more practical result. For example, a boy who had been taught algebra at school up to quadratic equations was unable to say why (-4) multiplied by (-4) produced *plus* 16.

8. Mr. J. H. Tritton, of Messrs. Barclay, Bevan and Co., bankers, Lombard-street.

The clerks come into Messrs. Barclay's bank at 18 years of age. The usual practice is for boys to go into some mercantile office for two years after leaving school to pick up as much as they can of business before commencing their bank work. It would be well to have a commercial school to which a boy might go for a two years' commercial course. The study of book-keeping and a course of the "mercantile bureau" before entering business would be of great assistance, and those who went through such a commercial course would find themselves years ahead of those who did not. As far as Messrs. Barclay's bank is concerned, foreign languages are of little use, though some of the clerks have a knowledge of them.

9. Mr. Frederick Chalmers, of Messrs. Brown, Shipley and Co., American bankers, of Founder's-court, E.C.

The business of the bank being almost entirely with America, foreign languages, though undoubtedly useful, are not essential. Formerly the firm conducted examinations similar to those of the Bank of England, but their practice now is to take on the clerks temporarily and test them. The present system of education seems to be beside the mark, the knowledge acquired not being practical, the arithmetic taught not bearing upon business, and no true idea of geography being imparted. The subjects which are now picked up in the office, but which might be advantageously studied before entering the bank, are currency, exchange, freights, insurance, shorthand, political economy, commercial law and the commercial bureau. The bank prefers to take men at an age when the physical and mental powers are at their best, say 20 to 24, and also prefers university men, of whom it has many. A commercial school, where a boy could attend a special course for one year after leaving school at, say, 17 or 18 years of age, in the subjects of the foreign curriculum of such a school as that of Antwerp, would be of service. A university commercial course is an excellent idea. It is reasonable to suppose that business men would prefer as an employe one who had gone through such a commercial school, but this remains to be proved. With regard to evening classes, he thought that when employes were once in business they had no time to improve themselves, and all theory must therefore be learnt before. Young men required a certain amount of exercise, as at their time of life sedentary occupations were trying to the health. Foreign clerks were no doubt cheaper than Englishmen, and they knew foreign

languages, but he could not speak as to their relative merits, as his firm employed none, it having been found that where foreign clerks had learnt their employer's business they went off and tried to take away his clients.

10. Mr. Shannon, of Coutts' Bank, said the bank employes generally entered the bank between the ages of 18 and 19, and were drawn principally from the upper middle and upper classes. They were examined in dictation, words being given which are frequently misspelt, and in arithmetic, and when they were acquainted with any foreign language a test was given in that. The writing was usually found to be bad, not illegible, but possessing no "form," and the composition faulty. The dictation paper was seldom correctly done, and it was not often that all the sums were properly worked. He thought that boys who were intended for business should leave school at 16, and up to that time their education should be general. What they wanted was a sound secondary education with one foreign language. Composition was very important, and he had known men who actually dreaded being called upon for this, and lost good opportunities through their inability in this particular. While holding that for the purposes of the bank two years in an office between 16 and 18 was preferable to any school training, he thought that, generally speaking, two years' training in a commercial school would be valuable, and the curriculum of the Antwerp Institute, as described, seemed to him a good one. For banking the most useful subjects were book-keeping, foreign languages, shorthand and typewriting, exchange, the decimal system, rapid and clear writing, quick mental arithmetic, and composition.

11. Mr. G. F. Glennie, secretary of the Bank of England, said most of the employees of the bank came from public schools. Their work was so simple that there was no necessity for a commercial training. There was an examination to be passed in handwriting, orthography, arithmetic (including vulgar and decimal fractions), English composition, and geography. Only those between the ages of 18 and 25 were eligible. The following were the examination papers submitted to candidates last year.

Orthography.

Dictation from *The Edinburgh Review*.

Arithmetic.

1. Write down in words 10403020, and express in figures forty millions, sixty-three thousand and two.
2. Enter and add up the following amounts—

£	s.	d.
90,132	10	9
62	3	4
1,021,842	6	7
2,369	14	2
3	5	11
30,981	19	1
7,525	10	8
3,826	17	7
941	7	2
16	14	9
28,469	10	6
401	6	5

3. Multiply £13,827 16s. 7d. by 758.
4. Find the G.C.M. of 5,617 and 13,817.
5. Reduce (a) 5 cwts. 3 qrs. 9 ozs. to ounces; and (b) 1 acre 2 roods 11 perches to square yards.
6. Simplify $\frac{6\frac{1}{2} - 3\frac{1}{4}}{7\frac{1}{2} + 1\frac{1}{2}} \div \frac{4\frac{1}{3} \text{ of } 1\frac{1}{4}}{2\frac{2}{3} \times 3\frac{2}{3}}$
7. Multiply 74.2 by .84, and divide the product by 2.4.
8. What decimal of a sovereign is .215 of £4 16s.?
9. Find the simple interest on £575 for 8 years and 5 months at 4 per cent. per annum.
10. The liabilities of a bankrupt amount to £16,320, and he can pay 11s. 4½d. in the £; what is the value of his assets?
11. If a sum of £1,624 be invested in 2½ per cent. consols at 112, what annual income will be derived therefrom?
12. What is the cost of papering a room 30 feet 4 inches long, 20 feet 2 inches broad, and 10 feet high, with paper 3 feet 4 inches wide, at 2½d. a foot?
13. An article is sold for £90 at a gain of 20 per cent.; what did it originally cost?
14. Half the trees in an orchard are apple trees, one-quarter pear trees, one sixth plum trees, and 50 cherry trees; how many trees are there altogether?
15. A merchant in Paris draws a bill for 1,616 francs upon a firm in London; what sterling money will the latter have to pay?—exchange being 25.25 francs per £1 sterling.
16. A and B were partners in business, and when the profits were divided, A received 5 per cent. on the capital he invested, and B 4 per cent. on his; A's share of the profits was the same as B's, and the whole capital was £22,500. How much did each receive?

*English composition.**Subject :—“ Strikes.”**Geography.*

1. Mention in order the counties of England which would be passed by a vessel in coasting from Great Yarmouth to Plymouth.
2. Describe the positions of Hamburg, Trieste, Marseilles, and Odessa; and give the names of the European countries bordering on the Mediterranean Sea.
3. What are the boundaries of Tibet? and what are the present capitals of Afghanistan, Siam, and Japan?
4. Name the principal British ports in South Africa; and describe the positions of Madeira, Pretoria, and Sierra Leone.
5. Draw a rough outline map of South America, and insert Peru, Chili, Rio de Janeiro, Buenos Ayres, and Venezuela.
6. Describe the positions of Alaska, Chicago, Boston, San Francisco, and Cuba.
7. Mention the capitals of West Australia, Victoria, and Tasmania; and describe the positions in New Zealand of the provinces of Otago and Auckland.
8. Where are the following mountain ranges—The Andes, Himalayas, Pyrenees, Atlas Mountains, and Balkans?

Last month for 22 vacancies only 17 passed. Boys from Christ's Hospital wrote and spelt well, but in other cases the writing was bad.

Mr. Glennie did not believe in taking boys away from school at sixteen, but thought rather that opportunities should be afforded to them there of acquiring what would be useful afterwards, such as foreign languages taught practically. A boy leaving school too early was deficient in “gumption.”

12. Mr. A. E. Mann, secretary of The London and Westminster Bank, said the bank employees came in at 18 to 21 years of age, and there was nothing to complain of so far as their education was concerned; it depended really upon the class drawn from. The question of a commercial school did not interest the bank, as advantage would probably not be taken of such a school if started. An all-round commercial education was all that was necessary, and he thought that a boy who made full use of all opportunities offered had that already. Foreign languages were of very little use in the bank. A boy who was intended for business, Mr. Mann thought, should have finished his schooling by 16 years of age; if after that he went for two years into an office, the boy would be of more service to his bank than one who had passed the two years at a commercial school. In the general way it would be to a boy's advantage to have had a commercial training, so that in spare time he could read up special subjects at home. Although, as already stated, a commercial school would be of no use to them, he thought it would with reference to business generally prove useful.

13. Mr. Herbert H. Twining, of Lloyds' Bank, Strand, said the head office was at Birmingham, and he could speak as to his branch. The clerks came at about 17 years of age, and being generally drawn from a good class were sufficiently educated to do the work that was required of them. They were taken for three months on trial, and during that time shifted from one department to another. Foreign languages were not required, as foreign letters, if they could not be read by anyone in the bank, were sent out to be translated, and in all cases answered in English. Mr. Twining thought that although a commercial training was unnecessary in his particular branch, such a training would add to the value of a clerk. For instance, opportunities for practice in working out stock exchange values and prices might be given.

14. Mr. Finch, underwriter to the Thames and Mersey Marine Insurance Company, said boys came into business in the City, as a rule, at 15 years of age, and what was wanted was a good general education. He did not think the idea of giving a commercial education at school was practicable; it would be of too scholastic a character. At present there was no knowledge of foreign languages, or so slight a knowledge as to be useless. Not one of the clerks in his company could read a French letter. A knowledge of foreign languages was undoubtedly useful. To teach book-keeping at school was, in his opinion, useless. To put a concrete case: supposing a commercial school in existence, and one boy going there at 15 and coming into business at 17, and another going straight into business at 17, the former would be behind the latter in practical knowledge, and would probably have learnt many things which would have to be unlearned. A commercial school might do good in exceptional cases, but would not meet a general want. He thought the proper system would be one which provided, say, travelling scholarships, to enable boys who had shown intelligence to be sent to a foreign high grade commercial school where they would learn the language and other things useful to them, and so become superior employees. As to the relative merits of English and foreign clerks, he did not think there were sufficient grounds for saying the latter were superior, as it was only the picked ones who came over here, the average being of a lower standard.

15. Mr. Finch Bellbrough, jun., of Messrs. Arthur Bellbrough and Co., insurance brokers, 23, Rood-lane, E.C., said they believed in an early start, 14 or 15 years of age. Boys as a rule could not wait longer, and, if they could, the boys would not at 16 and 17 take the rough work they would have taken younger. They thought no commercial education that would be of any use could be given to boys under 15, but that commercial training carried on after that age, concurrently with the practical work, would be of service. For practical commercial business life what was wanted was that a boy should write well and rapidly, be well grounded in arithmetic, and be quick at figures, and if possible know foreign languages. It was useless teaching book-keeping, owing to the methods adopted in the different houses varying so much, the object in all cases being to simplify methods as much as possible. They thought English clerks were holding their own.

16. Mr. Augustus Hendriks, actuary and resident secretary of the Liverpool, London, and Globe Insurance Company, said—The usual age at which the insurance clerks commenced was 17. Three

was very little required of them—ordinary arithmetic, casting, and dictation. The candidates were deficient in these subjects; but, owing to the number of applicants from which a selection could be made, it was not of so much importance. A knowledge of foreign languages, though not of importance in insurance business, might prove useful. He certainly should advocate the attendance at the lectures provided by the Institute of Actuaries in connection with their examinations for clerks on that side, and study in evening classes by any clerk of subjects bearing upon his work, but did not see a need for any further commercial training.

Speaking generally, however, Mr. Hendriks thought a high grade commercial school would meet a want of ready-made clerks which exists in some lines of business. Evening classes were good, but, where possible, it was better to acquire the knowledge before. The English clerk had everything to learn, and was sadly wanting in zeal, while the foreign one not only had zeal and knew one or more languages other than his own, but had done more practical work before entering into business.

17. Mr. George Todd, actuary and secretary of the Economic Life Assurance, 6, New Bridge-street, said the employees came between 16 and 20 years of age. All that was wanted on the insurance side was a sound secondary education which was sufficiently commercial for the purpose, and on the actuarial side there were the lectures of the Institute of Actuaries in connection with their examinations. In insurance only ordinary quickness and smartness in figuring were required, not the quick mental arithmetic of the warehouse. For ordinary commercial clerks ordinary secondary education was all that was required. As an employer he would sooner have boys without any commercial training. Take two boys leaving school at 16 years of age, one going to a commercial school for two years, the other straight into an office; at 18 the latter would, in his opinion, be the more valuable employee. As a rule, for the first four or five years a boy's work in an office is mechanical, and in that time he would probably forget all he had learnt at the commercial school (not always a bad thing), whereas in an office where there is a large staff the boy can acquire his technical (including commercial) knowledge as he works up. A smart intelligent boy, given the opportunities to see how the work is done, can pick up the business as quickly as is necessary. Knowledge of foreign languages is desirable where houses have any continental business, but he did not think it would be serviceable unless acquired abroad. Evening classes Mr. Todd considered met the want where any education was needed after school, and had this advantage—that a boy could choose his own time to take up any particular subject. He thought the employment of the foreign in preference to the English clerk was induced rather by his cheapness than anything else. A foreign clerk with some years' experience and at least one language would come for £1 a week.

18. Mr. Laycock, in charge of the commercial department of the *Financial Times*, said the employees were of two classes, the messengers who were only promoted on showing exceptional ability, and the junior clerks. The former came at the age of 15 or 16, the latter were chosen from those who had had two or three years' experience in some business, the drapery by preference, or a solicitor's office. He thought that better education had not produced a better article. The book-keeping taught was of no practical value, the writing was bad, the English was bad, and grammatical errors were frequent. Mr. Laycock thought that advanced commercial education should go side by side with technical, and as a business man, looked upon the former as the more important. A boy who went, on leaving school at 15, to an advanced commercial school for two years, although at 17 he would not be of so much value to his employer as the boy who had gone straight into the business, would, in his opinion, turn out to be the better man in the end. The following subjects were suggested as commercially most important—Book-keeping, advanced arithmetic, including weights and measures, decimal and metric systems, foreign monies and exchange, composition, modern languages, commercial geography, commercial history, commercial law.

Mr. Laycock who before coming on the staff of the newspaper had been many years in the drapery business, said these evening classes were useful, although limited by this—that a boy to derive benefit from them must not only be industrious, but must have a good constitution, as no commercial education could be given to boys before commencing their business career. The best boys for this business were found to be boys from the London Orphan Asylum. The managers were business men, and the education given was therefore practical. A point was made of mental arithmetic, and the boys were taught to cast up and to make out invoices.

19. Mr. Thos. Hall, of Messrs. Hall, Beddall and Co., contractors, said in his firm the employees started between the ages of 15 and 16, and worked their way up, and all that was required of them on entering was a good general education. Boys from Board schools who had passed standard VI. had been tried, but were not satisfactory, and only those of a better class were now taken. The best type of boy, Mr. Hall thought, for a business such as his was one who had been well grounded in reading, writing and arithmetic, was quick at figures, and could write a grammatical letter, and came straight from school at 16 to be moulded by him. He should tell the boy after entering his service to direct his attention especially to the following subjects—mensuration of areas and solids, geometry and architectural drawing. If the boy would attend evening classes he would certainly find them of service, but the above-mentioned subjects should be the first studies.

20. Mr. J. A. Baker, of Messrs. Joseph Baker and Sons, milling engineers, 58, City-road, E.C., referred to a letter written by him, from which the following portion, relevant to the matter in hand, has been extracted. "I have given a little attention to the subject referred to, and have also discussed the matter with one of my partners who takes charge of the account department of our business, and we are agreed, 1st—That in our education system we are much behind in the study of continental languages, even those most used being known by a ridiculously small number. 2nd—That in the matter of book-keeping it is almost impossible to find a competent book-keeper among the regular run of clerks. Perhaps not more than one in five hundred would have a thoroughly efficient knowledge of book-keeping by double entry. School books on book-keeping are crude and imperfect, and seem most of

"them to have been prepared by those with but little practical knowledge. We compare badly with the United States and Canada in this respect. American commercial schools, and indeed most of the common day schools, teach this useful subject much more perfectly than we do."

Mr. Baker then expressed the opinion that shorthand and typewriting, both useful subjects, were known by comparatively few, and there was no attempt to teach boys to write rapidly. An improvement in the writing, spelling and figuring of boys was also to be desired. The usual age for starting in business was 14 to 15, but his firm were not particular as to this. He would certainly like to see education specialised from 14 to 16 or 17, according to the line the boy intended to take up. He would welcome a high grade commercial school with as wide a curriculum as possible, to allow of modification to suit the individual case. In addition to the subjects already mentioned, he should consider the following desirable—Freights, transport duties, tariffs, commercial geography, weights and measures, the decimal system, study of mercantile products and object lessons, which, judging from the description given him, the mercantile bureau appeared to realise. (On this subject Mr. Baker's son said that at the Friends' School in York, in the French class, an anecdote was related to the boys, and a few days after each was expected to repeat it in his own words. Business predicaments also were suggested, and the boys were then told to compose diplomatic letters to extricate themselves therefrom as gracefully as possible.) Those intending to become commercial travellers, Mr. Baker thought, might with advantage devote three years to studying foreign commerce and foreign languages.

He thought an Englishman could learn a foreign language in this country sufficiently to fulfil the duties of a corresponding clerk, although he might not write it idiomatically and as a native. Their own corresponding clerk, who knew German, French and Spanish, was an Englishman (who had been abroad), and though he did not speak as a native of any one of those countries, and he doubted his ability to make a catalogue of their goods in any of those languages, yet he had never heard that he had failed to make himself understood. What struck him in the English clerk was his want of ambition. He seemed content to do his work decently, not trying to do it as well as it could be done. He would not towards the close of the day ask himself what he could do to get the work as forward as possible for the next day, but would ask what could be left to the next day.

21. Mr. D. W. Green, secretary of Messrs. R. Waygood and Co., Limited, manufacturing engineers, said the employees of the Company came in as a rule at 15 years of age and worked their way up, the highest position to which they could attain being that of manager of a department. The best of these were selected for work in the counting-house. He did not think it would serve any useful purpose to attempt to give such boys any commercial training (only a sound elementary education being required) before entering business; but if after a year or two they attended evening classes, taking up the subjects in which they were deficient, they would learn to use their brains instead of being mere machines, and so become of much greater service to those employing them. Mr. Green thought that if a high-grade commercial school were started, and a boy went to such a school at the age of 15, having made up his mind as to the line of business he would take up, and studied the subjects appertaining thereto, it would in the end prove of service to him. For instance, taking two boys, one leaving school at 15, and going straight into a business, the other going to such a commercial school for two years, and then going into the same business at 17, the former would be of more value to his employer, but probably at 20 the latter would be the more valuable of the two. The most important subjects for those intending to enter upon the engineering trades were—mathematics (quick figuring, especially decimals), drawing, shorthand and typewriting, book-keeping, commercial geography, French, German, letter composition. The foreign business of the Company was at present small, and so far it had been found better and cheaper to conduct it through local agents.

22. Mr. Capel, of Messrs. Dent and Co., glove manufacturers, Wood-street, said most of the firm's hands who were between the ages of 18 and 20 came from the retail trade. In the case, however, of boys from the London Orphan Asylum, of the Board of which he was a member, they started them in the counting-house at 15, where they remained two years; they then went to the entering room, whence they were brought back to the counting-house or sent into one of the departments. What was requisite for these boys was mental arithmetic, good handwriting and spelling, and in these matters the knowledge displayed was satisfactory. Where drawn from other sources the writing was disgraceful, and often where a boy's writing was good enough when he was only asked to write slowly, it became illegible if anything like speed were required. For purposes of many kinds of business it was most important that boys should be practised at school in taking down rapidly from dictation; practice also in paraphrasing was very desirable. The requirements a boy should possess upon entering the counting-house were good and rapid handwriting, simple arithmetic, dictation and paraphrasing, and slight knowledge of book-keeping.

For the shipping department Mr. Capel said he would be glad to place a boy if he could find one who had been trained in foreign correspondence, had learnt weights and measures, the metric system and commercial geography. The firm was obliged to employ foreigners, as a knowledge of French and German was of the greatest importance, more especially the latter, the skin and leather trade being almost entirely in German hands, but they would much prefer Englishmen. It was, however, the rarest thing possible to have an application from an Englishman who professed to be able to correspond in any language but his own. On this account he would welcome any plan which would allow of a boy receiving an exclusively commercial education during two years, not to commence, however, until after he was 15 years old, as before that age he did not consider the boy would derive any profit from it. As to evening classes, the day's work was long enough, and, unless in exceptional cases, study if not done before entering business, would not be done at all. The business in which he was engaged being a very technical one, technical schools were of great service. In this line of course chemistry was of great use.

23. Mr. T. H. W. Idris (manufacturer), of Messrs. Idris and Co., Limited, said in his opinion the great defect in the education of boys was that they were given too much leisure and never acquired the habit of application. The most unsatisfactory boys were those who came from public schools at 17 years of age.

Those coming from board schools at 16 were after a short time much better. A boy who after a sound school board education had gone to a commercial school at the age of 15 for one or two years would be useful to his company, but the best would be a boy of 15 or earlier coming in straight from school, who would carry on his commercial education while in the service of the company. What was wanted was power to make a mental profit and loss account. If there were a commercial school Mr. Idris thought employers would be glad of boys who had taken advantage of such opportunity for acquiring a commercial education, and it would impress upon boys the importance of applying themselves to commercial studies. Foreign boys learn what will make them of most value to their employers.

24. Mr. Thos. P. Chappell, of Messrs. Chappell and Co., Limited, music publishers and pianoforte manufacturers, said the business in which he was engaged was of a peculiar nature, and was one in which clerks, if sufficiently intelligent, might work up to positions of £500 or £600 a year. Some came in at 15, the best being from the Philological School in Marylebone. The defects noticed in the clerks were the want of knowledge of foreign languages, shorthand, and book-keeping, and the absence of that energy, push and exactness which were to be found with the American and the foreigner. He mentioned as a curious fact that, though some of the clerks in that house could type, not one knew shorthand. Speaking generally, however, although it was hardly needed in his own particular line, Mr. Chappell thought there should be some place where a commercial training could be obtained by those who require it.

25. Mr. Edgar Brinsmead, of Messrs. John Brinsmead and Sons, pianoforte manufacturers, said some of the employees of the firm came in at about the age of 14. These were chiefly drawn from the School Board schools, and became errand boys and mechanics. Their education was not of a sufficiently practical or technical character; what they knew they had learnt like a parrot; their thinking powers did not seem to have been cultivated. The others who were in the office were not taken into the business before the age of 18. Mr. Brinsmead thought the time for leaving school should be, according to the boys' intelligence, for mechanics between the ages of 14 and 16, and for clerks between the ages of 16 and 18; the period of life during which instruction made the deepest impression was that between 14 and 16. He thought there was no comparison between our system and that of high grade commercial schools on the Continent, and that such a school was wanted here. His view was that where a boy could afford to go into business at a later age than 14, and spend one, two or three years, according to the line of business to be taken up, the knowledge then acquired would more than make up in the long run for the loss of actual office experience during that time. For the boy who could not wait there only remained the evening classes, and these did good service, though often physical fatigue would prevent the boy from deriving the full benefit from them.

Mr. Brinsmead considered that, of the foreign languages, French and German were the most important, then Spanish, then Portuguese, and lastly Italian; if the only alternative offered were dead or living languages, he agreed that the former must give way. He was of opinion that classics should be retained, unless by so doing no time was left for instruction in modern languages. Saving the above qualification, he thought the curriculum of the Antwerp institute a suitable one to adopt.

26. Mr. Musgrave, of the Wool Exchange, Limited, said the character of the wool trade was such that technical knowledge was absolutely necessary for the intelligent performance of the work in the cash department (ordinary shop cash desk work) and the counting-house. This technical knowledge could only be learnt in the office. The ordinary commercial clerk would be of no use at all; one from a general shipping office would, from his training, pick up the business quicker, but would be all at sea to start work. That being so, it would be seen that a commercial training before business, so far as the wool trade was concerned, was of no use. The boys began at the ages of 14 and 15 by opening letters and running with messages to the docks and elsewhere; they were then put on the day book, a record of wool inwards and outwards which (or an extract of which) was sent into the counting-house, where the invoices were made up, as a check on the sales. Speaking, however, generally, Mr. Musgrave thought that a commercial school similar to those which the Germans had, with the same practical teaching, would prove of service to business men in general. Foreign languages were very important, but he thought they should be acquired abroad.

The general average English (not bank) clerk, said Mr. Musgrave, was one generally who had started as an office boy, and having worked his way up and learnt his master's business secrets, had acquired a confidential position, and it was in this character rather than for his intelligence that he was paid. The result was that when anything happened to the particular business, or the particular master, he found it very difficult to find another situation. His qualifications were that he had kept his master's books correctly, had accounted for all moneys entrusted to him, and had kept his master's secrets, and these were all. In applying for fresh employment, he found other confidential clerks with these same qualifications, and he had nothing further to offer. The foreign clerk, the German especially, who generally knew English and often another language, and who was perhaps supported by his parents, came really as a spy into the enemy's camp. Frequently he takes a record of his employer's books, of his discounts, of where he buys his goods and where he places them, and after a short time sets up for himself and cuts up the old firm by under-quoting. It should also be remembered that the German manufacturer is more ready to adapt himself to new requirements. As to the cheapness of their work, he had known a case of four Germans, each receiving a wage of 7s. per week, and living in one room.

27. Mr. Alfred Smith, foreign agent, Newgate-street, said he agreed with Mr. Tansley as to the bad spelling and writing and faulty figuring, and the importance of book-keeping and the decimal system. At the start, without being specialised, the education should lead up to, or form a basis for a commercial education. His own experience was that where foreign languages were taught the teaching was not thorough, as it should be, at an early age. Buyers with a knowledge of foreign languages saved their firms the commissions of local agents, and it was ignorance in this department which allowed commis-

sion agents to make the large fortunes they did. The knowledge of foreign languages would therefore tell greatly in favour of the employee in the warehouse and in the counting-house. If his knowledge were not sufficient to enable him to undertake the foreign correspondence, he would still be useful for the purposes of translation. For commercial travellers this is, of course, all-important, as it is impossible through an interpreter to discuss with the customer what is wanted, and so ascertain his requirements. In other respects Mr. Smith did not think the training of the traveller should differ from that of other employees. He said that one should begin to teach French and German as soon as possible, and at 14 specialise till the boy goes into business; save as to the mercantile bureau, which he considered important only as an exercise in home and foreign correspondence, he approved of the curriculum of foreign commercial schools; indeed, he approved of anything that would "universalise or continentalise" the English business man's mind. The all-round tendency of business (both in retail and wholesale trades) was to bring the producer and consumer together, and anything and everything that would facilitate the carrying of this principle into practice would endow the individual with that which had a decided market value and would meet a pressing want. This was the fundamental principle upon which should be based all organisation of commercial education. Evening classes Mr. Smith considered a makeshift. University commercial education he did not believe in. He thought it would prove useful if arrangements could be made for assisting our people to go for a time into foreign business houses.

28. Mr. Harvey Twining, of Messrs. Richard Twining and Co., tea merchants, said employees usually came in as boys at 15 years of age. Commercial travellers were taken at about 30. The best preparation for business, in his opinion, was the education given on the modern side of a secondary school, attention being paid to modern languages. The commercial part of his education the boy would pick up better and quicker in the office.

29. Mr. R. C. Antrobus, merchant, said he thought that specialisation for one or two years, beginning at 15, based upon a good secondary education, would put a man years ahead of one without such training. Most of his business experience had been in the East.

30. Mr. Donar Hoare, of Messrs. Hoare, Miller and Co., merchants, 27, Austin Friars, E.C., said he had been talking the matter over with some of his co-directors and the secretary of the Brazilian Bank, and thought it was time something was done to improve the writing of boys, which was execrable. Their spelling and figuring also were defective. The foreign clerk had the pull in his knowledge of languages, double entry, &c., which he had learnt in the mercantile bureau, besides being cheaper; the English one should have a pull in his writing, as the foreigners would never write to our taste. Mr. Hoare thought commercial training of value, but considered it should be given whilst at school, parallel with the ordinary secondary education. He liked the idea of giving secondary schools a commercial division, to which a boy might be transferred at 13, with a course of two years, where subjects such as French, German, handwriting, shorthand, and the mercantile bureau would find a place. He thought the tendency in business was for correspondence to drop out. He did not think there was any difficulty in finding good boys.

31. Mr. Lorimer, of Messrs. Lorimer and Co., manufacturing chemists, wholesale druggists and exporters, Islington, said the employees started as youths of 16 and 17 years of age. Several had come from University College School. He found a want of power of applying school knowledge, and that nothing was known of book-keeping or shorthand (which a boy should have learnt by the age of fifteen), nor of foreign languages—at any rate not such as was of practical value. He thought that by 16 a boy should have learnt practically at least one language. French and Spanish were the most useful, German less so. A foreigner of the same age would know book-keeping and shorthand and at least two languages.

Mr. Lorimer thoroughly approved of the French higher grade commercial school, and thought that one here would be most valuable. He intended to send his son to a French commercial school unless there should be one started here first, and would certainly give a preference in the choice of employees to those who had passed through such a school. He himself would have found the advantage of some training in commercial law.

Englishmen had failed as foreign correspondents, and it was necessary to fall back on foreigners. Something more than a mere knowledge of the language was necessary. School did not give the necessary business style or knowledge of technical words. As to evening classes he did not think a boy after a full day's work derived much benefit from them unless they were taken up by him as a hobby. The girls employed were selected after a test in writing and figures, by preference from Owen's School. They were well looked after, and required no further training than they had in the business.

32. Mr. P. Brown, of Messrs. C. and E. Morton, preserved provision exporters, Leadenhall-street, said the employees came in as boys at 15 years of age, which was in his opinion the proper age for starting in the line of business in which he was interested. All that was required, in his opinion, was a sound elementary education. "If you teach the boys to read, write, figure properly and work with a willing spirit," he said, "we can then train them for what we want." Mr. Brown approved of evening schools, but did not find boys very anxious to attend them. As regards foreign correspondence English clerks could not write a letter like a native unless they had been educated abroad; foreign clerks also were cheaper. A boy who came in with a previous commercial training would be more difficult to mould, and would probably think too much of his own value to prove useful.

33. Mr. Tansley, of Alfred Smith, foreign agent, Newgate-street, said boys have too many holidays, they forget in the holidays what they learn in the term, they are allowed too free a hand, they do not realize the value of money, want more thought, more foresight; they do not take their education as something to be used later on. All their business was with France. Of the candidates for employment, who were mostly of the middle class and between 18 and 20 years of age, very few professed knowledge of any foreign language, or if they did, proved, when tested in French or German, to be all at sea. Again very few had any knowledge of book-keeping: for a book-keeper recourse must

be had to an old staid man of 40. They were not as well up in arithmetic as they should be, and seemed to have forgotten what they had learnt. Although professing to be quick at figures, they took a long time over an invoice, which a boy of 15 ought to be able to draw up, and very often did not even then do it correctly. Mr. Tansley much preferred Englishmen, but as compared with Germans of the same age they were not "in it." The former lacked that commercial aptitude and training which the foreigner had. They were too fond of sports, and they found business irksome, and did not interest themselves in it, as the foreigner did. It was always more difficult to keep after hours an English clerk, who was always thinking of getting away, than a foreign one. He thought an intelligent man should be able to learn in England a foreign language for purposes of correspondence.

Mr. Tansley thought for the last two or three years of school life, education should be specialised, beginning not earlier than 14. In a sound general education a boy should learn to write a good hand, acquire a thorough knowledge of arithmetic (elementary) and a foreign language; then should come general principles of book-keeping and double entry, the perfecting in modern languages, mainly French and German, more especially the former, and Spanish, as of less importance; type-writing and shorthand and the metric system.

Mr. Tansley approved in the main of the curriculum of the French and German commercial schools, with a preference for the latter, which, in his opinion, turned out more reliable employees; though with regard to the "mercantile bureau" he felt uncertain how it would work. He thought business men would prefer for employees those who had passed through such a school. Evening classes would be of use to those who were obliged to go into business at 14. English commercial travellers were good, but when sent abroad were at sea. For them foreign languages, commercial geography, freights, tariffs, transport and such subjects would be of service. Where, as is generally the case, they began as entering clerks, after passing a time in departmental work, and then went abroad, the necessary knowledge must have been acquired before.

34. Mr. Godfrey (counting-house), of Messrs. Pawson and Leaf's, Limited, warehousemen, said in his experience in the counting-house he found the boys who came in about 15 wrote indifferently and were deficient in mental arithmetic. They were not taught the shortest method of arriving at results of calculations. The sort of test questions put were— $6\frac{1}{4}$ at 2s. 6d., 199 at $12\frac{1}{4}$ d., 40 at $8\frac{1}{4}$ d., $19\frac{1}{4}$ at $23\frac{1}{4}$ d., and he found the boys solved them in an orthodox but roundabout way, so that even when correct answers were given the work was not what was wanted, as too much time was taken in arriving at the results. In his firm's business speed as well as accuracy was essential—so long as speed-accuracy was obtained, the method was immaterial. Mr. Godfrey thought a commercial training given to a boy between 14 and 15 years of age would furnish better material to work upon, but the education must not be too advanced for their sort of business, or the boy would think it drudgery, and so not master the details of the business.

He did not think the fact of there being evening classes and the amount of free education which could be obtained were sufficiently widely known. As far as his people were concerned, he would put up any notices that were sent to him, and although he did not suggest that a large proportion would attend, at any rate some, and those the most intelligent, would avail themselves of the opportunities offered.

35. Mr. Scharer, of Messrs. Higgins, Eagle and Co., lace manufacturers, Cannon-street, said their employees came in as boys at 15 into the counting-house, then went to the entering room and through the departments, after which they either returned to the counting-house or remained in one of the departments. Boys were not as good as they used to be. The last year of school teaching should be of a more practical character. Mental arithmetic was essential, so were good writing and paraphrasing. Boys should be well practised in bills of parcels, interest and the simple rules of arithmetic; accuracy in figuring was what was wanted. It was no good teaching book-keeping till later, as it interfered with the thorough grounding. Shorthand also could come later. Evening classes were good, but in the drapery business there was no time for them. The foreign clerk was a good sticker and plodder, but was not so quick as an Englishman in getting through his work; foreign languages must be learnt in order to compete with him. A German with a knowledge of three languages would take 20s. a week. Mr. Scharer mentioned a society from which a German may obtain £70 a year to enable him to come over here and learn. This money, though sometimes returned, need not be. He also referred to the fact of the Swiss having a mercantile society with headquarters in Berne and local branches in other places, who circularise employers on behalf of their clerks.

36. Mr. E. Clarke, of Messrs. Higgins, Eagle and Co., wholesale drapers, Cannon-street, said he certainly thought that a school where a boy could have a year's commercial training between the ages of 14 and 15 would be most useful to his firm, as then there would not be so much to teach the employees, who would be more valuable. There remained always the fact that education was so much cheaper abroad than at home. The boys who came from the Commercial Travellers' School seemed better fitted for business than others. For further information Mr. Clarke referred to Mr. Scharer, with whose opinions he appeared to be in accord.

37. Sir J. Blundell Maple said all Maple's employees worked up from the bottom, learning their business as they went, and finding themselves, when qualified by seniority for a higher position, to have had sufficient opportunities of acquiring the knowledge necessary to fill that position. This system, by which all have an equal chance, no strangers being brought in when vacancies occur higher up, encouraged the spirit of emulation. They had no use for ready-made clerks, therefore all the knowledge required to start with was reading, writing, and figuring, foreign languages also being of great value. The boys most suitable for these purposes were those from charity schools, such as the London Orphan Asylum, Spurgeon's, those at Haverstock-hill, Watford, Slough, &c. (Bluecoat or public school boys do not mould well). These come at about 16 and are lodged and boarded, receiving after a few months a little in the way of pocket-money. All the big houses such as Shoolbred, Marshall and Snelgrove, hold the same opinion as to the character of the material best suited to the requirements of the retail trade.

38. Mr. Webb, of Messrs. D. H. Evans, Limited, Oxford-street, said what was wanted for the drapery trade was apprenticeships. Boys should start at 15 years of age, and go through each department. Now, as they are in a hurry to earn wages, they must be put to something to earn them, and generally remain all their time in the department in which they were first taken on. For the counting-house 16 was a good age, but it was too late for the selling and buying trade.

Mr. Webb said he should prefer a boy who had received a commercial education, provided it was given between the ages of 14 and 15. He himself had found a knowledge of book-keeping useful. In the case of manufacturing houses, he thought commercial education after 15 would prove useful. He thought this commercial education should be optional, but appeared to assent to the suggestion that if employers preferred those possessing certificates from such a school, it would practically oblige those destined for commerce to qualify for such certificates. He did not find clerk wanted evening classes after their work was done.

39. Mr. Crisp, of Messrs. Crisp and Co., drapers, Islington, said, as to relative merits of English and foreign clerks, nobody could beat an Englishman. He believed in entering business early and working up. Formerly in answer to an advertisement a string of clerks would have been waiting at the door; now good clerks are hard to find. The unsatisfactory character of the present-day clerk was due to too much leisure at school. People do not think nowadays. Mr. Crisp thought a commercial school would succeed, but said that it should pay for itself, as we had, in his opinion, gone far enough in the matter of free or assisted education.

40. Mr. Barnes, of the Peninsular and Oriental Steamship Company, said the P. and O. employees came between the ages of 17 and 20, and were constantly changing, receiving in the first year £30, in the second £50, in the third £70, and "after that the deluge." The idea of a school where a commercial education could be obtained seemed a good one. What was required of those entering the service was good writing and spelling, figuring and composition, and in these subjects boys from school were sadly deficient. He then called in two of his staff, Mr. Joseph and Mr. Taylor, and the following subjects were suggested as likely to prove useful—shorthand, foreign languages, practical arithmetic, general principles of book-keeping, commercial geography, shipping documents, how to draw them up and what they mean, elementary commercial law, weights, measures and tables of foreign countries, the metric system from a commercial point of view, carrying on fictitious operations. The opinion was expressed by Mr. Joseph, Mr. Taylor concurring, that preference would be given to those who had been trained in the above, and that an intelligent boy who took advantage of such a training would be much more useful and be in a position to command more money.

41. Mr. Bradgate, nominated by the Hon. Sydney Holland, Chairman of the London and India Docks Joint Committee, to give any information desired, said the dock employees came in as junior clerks between the ages of 13 and 19, mostly direct from school. They were expected to write a decent hand, to be able to write an ordinary letter, and spell without mistakes, and to know arithmetic up to and including decimals, and were tested in these subjects on entering. A stiffer examination in the same subjects had to be passed for promotion to the fourth class. Messengers on entering were also expected to pass a lower standard in the same subjects as the junior clerks, as they might rise to be foremen, who needed to be ready with their pens and able to make easy calculations. The best kind of training for those entering the Joint Committee's service was a good secondary education, followed up by evening classes. Evening work was encouraged in various ways. Thus, on entering, the junior clerks were advised not to consider their education at an end, but to take up shorthand and book-keeping as likely to give them a start. It was a condition of employment in the secretarial and managerial offices that a clerk should be able to write shorthand at the rate of 80 words a minute, and where a clerk was unsuccessful in the test, he was given three months to learn, and if not then successful would be sent to the docks. Prizes were given to junior clerks after three, and to messengers after four years' service for passing an examination of a secondary character. Clerks after two years in the fourth class may pass an examination on the lines of the Civil Service second grade, in shorthand, book-keeping, précis writing, commercial geography, knowledge of terms used in dock documents, composition, and digesting returns; and notice had been given that clerks who had passed this examination, other things being equal, would have a preference for vacancies in the chief executive offices. As a rule School Board boys were not taken. In addition to the examination test, the school from which the boy came was taken into account as showing whether he had received an all round education. The boys who came from the City of London school appeared to have received a good education. Supposing two boys to have entered from this school, one having come straight into the service of the Joint Committee, the other having gone to a commercial school for a year, Mr. Bradgate was of opinion that the latter would not have learnt in that year at school enough to make up for the loss of the one year's experience that the former would have obtained. The familiarity with the documents acquired down at the docks whilst he handles them could not be obtained at a school. He thought that the top class or last year of the modern side of the secondary school should be commercial, a feature being made of foreign correspondence. The great difficulty would be found to be in extending the age for entering business. Unless the age were extended, the work must be done in the secondary school. Apart from the suggestion above, Mr. Bradgate saw no want for a separate commercial school, as he did not think enough would be learnt there to make up for the loss of time, of service or seniority. As to foreign clerks, he thought, to start with, they were more useful than ours. An English clerk being of the same calibre would pick up or pass the foreign one. He considered foreign languages very important, in the teaching of which great reforms were needed.

42. Mr. William Forbes, general manager of the London, Chatham and Dover Railway, said nearly all the employees of the London, Chatham and Dover Railway came between the ages of 14 and 15 from School Board and voluntary schools, having passed the 7th standard. In reading, writing and arithmetic the boys were fairly good, but in geography they were weak. They had no knowledge of foreign languages, which on the southern lines would be of service, nor of shorthand and typewriting, important for all railway work. The boys began as learners or apprentices and were sent in that capacity to country stations for six months to learn telegraphy and railway routine. Railway companies at the present day recruited almost entirely from the children of their own employees

and thus had a very large field to draw from. For railway employees, commencing work as they did at so early an age, Mr. Forbes did not think any provision for a commercial training before entering the railway service could be made; nor indeed after by means of evening classes, as 10 hours' work during the day would hardly allow of a boy deriving much benefit from evening work. There might be some openings in railway offices for clerks of a greater age who had received an advanced commercial education, but such openings would be of rare occurrence. Mr. Forbes said he himself had learnt French and German, and had been at a German commercial school, and had found the benefit of his knowledge of those languages and of the practical work gone through whilst at school in Germany. And speaking generally, he thought that a high grade commercial school here would prove a useful institution.

Mr. Henry Clarke, member of the London County Council, pointed out in reply to a circular letter of enquiry that the German boy gives to self-improvement, especially the learning of languages, "the spare time devoted by an English boy to out-door pastimes. He is, too, more anxious and more persevering; the result to some extent of different school training, but also of the atmosphere of diligence which surrounds him in Germany. Evening classes must be a great boon here for the study of languages, shorthand, and the principles of book-keeping. In my opinion, a youth destined for an ordinary clerkship does better by entering a good place of business at 15 or 16 than by seeking higher commercial training at school up to 18 or 19. In an office he is acquiring practical knowledge of the duties and business discipline at the same time."

In a letter addressed to Mr. Sidney Webb, Mr. Clarke recommends "the London Chamber of Commerce to organise, with the aid of British consuls, local committees of our compatriots dwelling in every centre of trade, as Havre, Antwerp, Paris, Frankfort, Madrid, and so forth. The objects of these committees is to provide some surveillance for the youths sent out, and to assist in seeking openings in houses of business prior to the candidates leaving home.

"Lads from school would earn very little, and therefore we must provide 'scholarships' of, say, £50 a year or so, and, where possible, require the parents to contribute something.

"The scholarships to be for three years and during good behaviour, and only to be given to those whose parents will satisfy the authorities here that the youths will, on the expiration of their 'apprenticeship,' become candidates for commercial employment in this country.

"I propose that the Chamber of Commerce should undertake the correspondence with the parties abroad, and that the Technical Education Board, in combination with the chamber, should select the recipients. But all these details your Board would arrange in the best manner to secure the object in view. Probably if the scheme were adopted this year you would not secure more than 20 suitable candidates, although in time the number might reach twice that number. They would certainly get absorbed here, and prove of incalculable advantage to traders now forced to employ foreigners."

In addressing a meeting at the Mansion House a short time previously Mr. Henry Clarke pointed out that, while German boys could come to London and obtain junior situations, English boys would have the greatest difficulty in obtaining employment in a continental city, because there was a lack of openings. To meet this difficulty Mr. Clarke recommended the scheme referred to in his letter to Mr. Webb, and suggested that the Technical Education Board should provide £1,000 a year in order to give £50 a year to each of 20 boys, who would be apprenticed to bankers and merchants in foreign centres of trade.

Appendix III.

Information with regard to Foreign Commercial Schools.

BELGIUM.

A.—Elementary and intermediate commercial education.

In Belgium elementary education is provided for in the—

Ecoles inférieures communales,

Ecoles primaires supérieures,

though so far as commercial education is concerned the écoles moyennes represent the elementary, the Athénées the secondary, and the Institut d'Anvers the higher grade. There were between 1884 and 1886, 23 normal schools, and in their curriculum commerce and commercial institutions and book-keeping find a place.

Secondary education is represented by the—

I. Ecoles moyennes inférieures, comprising what is commonly known as écoles primaires supérieures, écoles industrielles et commerciales, called écoles moyennes de l'état, of which there were between 1884 and 1886, 83,

II. Ecoles moyennes supérieures called athénées royaux or collèges royaux, of which there were between 1884 and 1886, 25.

This information is taken from a book entitled *L'Enseignement commercial et les Ecoles de Commerce*, by M. Eugène Léautey, and from Antwerp Congress Papers No. 2.

I. There are four kinds of écoles moyennes for boys and two kinds for girls, of which one kind for boys and one kind for girls comprises a general section and a commercial section.

A preparatory section, which is annexed to these schools, is organised as a complete elementary school.

The course is one of six years, the age for admission being six.

The school proper comprises three classes—

One year of study. Third class.

Two years of study. Second class.

Three years of study. First class.

The age for admission to the third class is twelve. In the first year the instruction is of a general character, the studies being specialized; in two or three years the majority of those in business have passed through these schools.

Table showing subjects and time allotted to each commercial section—

Boys.

Subjects.	Number of hours per week.	
	First special year.	Second special year.
A.—GENERAL COURSE.		
i. Religion	2	2
ii. Mother tongue	4	4
iii. Second language	4	4
iv. Third language	4	4
v. Geography	1	1
vi. History	2	2
vii. Arithmetic and algebra	4	3
viii. Chemistry (second special year)	—	1
ix. Music	1	—
x. Gymnastics	2	2
	24	23
B.—SPECIAL COURSE.		
i. Commercial arithmetic (two hours during the first term of six months of the second special year)	—	2
ii. Elementary commercial law (two hours during the second four months of the second special year)		
iii. Accounts and book-keeping	5	4
iv. Economic geography	—	1
v. Fourth language	2	2
	31	32

See rules and programme under order reorganising instruction in "écoles moyennes," September 10th, 1897.

GIRLS.

Subjects.	Number of hours per week.	
	First special year.	Second special year.
A.—GENERAL COURSE.		
i. Religion	2	2
ii. Mother tongue	4	4
iii. Second language	4	4
iv. Third language	3	3
v. Geography	1	1
vi. History	2	2
vii. Arithmetic	3	2
viii. Domestic Economy	1	2
ix. Needlework	1	1
x. Music (one hour during recreation)	—	—
xi. Gymnastics	1½	1½
	22½	22½
B.—SPECIAL COURSE.		
i. Commercial arithmetic (two hours during first six months of second special year)	—	2
ii. Elementary commercial law (two hours during second six months of second special year)		
iii. Accounts and book-keeping	5	4
iv. Economic geography	—	1
v. Fourth language	2	2
	29½	31½

II. The age of admission to the athénées is 11. There are seven classes or years of study. The sixth and seventh are devoted to general instruction, and then there is a division into sections, one of which, the professional section, is the only one that concerns this inquiry. This section comprises one inferior division, with two years' study, called the 4th and 3rd classes; one superior scientific division; and one superior commercial and industrial division, composed of three classes.

The following are the subjects of the different classes—

5th class. Agents and institutions relating to home commerce.—Invoices, accounts of purchase and sale way-bills, commercial correspondence.

4th class. Revision of preceding; principal obligations of a merchant under the code, bills of exchange, bills to order, book-keeping in single entry, incidental books, general principles of book-keeping in double entry, practical exercises.

3rd class. Repetition of subjects taught in the preceding course; agents and institutions concerning specially foreign commerce, sub-division of general accounts; special accounts—consigners, merchants, bankers and partners; commercial law, in relation to deposits and companies; accounts, current and at interest, three methods; annuitant's accounts, commercial correspondence, practical exercises.

2nd class. Resumé of principles of accounting, exchange and its combinations, arbitration and bank orders, currency (gold and silver), arithmetic exercises applied to these different operations. Commercial law, contracts, sales, and purchases; History of the industry and commerce of Belgium to the close of the 15th century. Industrial and commercial geography of Belgium, study of the nine provinces (nature of the soil, principal natural and industrial productions, commerce, modes of communication, remarkable localities).

1st class. Repetition of the principal subjects taught in the preceding course; government stock, shares and obligations, repayment of loans, exchange operations, annuities, life and property insurance, savings banks and old-age pensions, practical exercises, speculative commerce, civil law, commercial code and special enactments, political economy. History of Belgian trade and industry from 1500 to the present time; sketch of the development of the principal branches of industry since Belgian independence, Belgian commercial and industrial geography, commerce, import, export, and carrying trade.

The time devoted to "commercial sciences" is—

In the 5th class	1 hour in the week
„ 4th „	2 hours „
„ 3rd „	3 „ „
„ 2nd and 1st class	4 „ „

but this does not comprise all the commercial teaching, as appears by the following table—

Distribution of time on the modern side.	7th Class.	6th Class.	5th Class.	4th Class.		3rd Class.		2nd Class.		1st Class.	
				Scientific.	Commercial.	Scientific.	Commercial.	Scientific.	Commercial.	Scientific.	Commercial.
Religion	2	2	2	2		2		2		2	
French	7	8	7	7		5		5		6	
Flemish	7	6	3	3		3		3		3	
German	—	2	4	3		3		3		2	
English	—	—	—	(2)	2	(3)	— 3	(3)	— 3	(2)	— 2
History	2	2	2	2		2		2		2	
Geography	1	1	1	1		1		1		1	
Mathematics	3	3	4	4		6	— 3	6	— 3	8	— 3
Natural Science*	—	—	2	2		3		2	— 4*	—	4*
Commercial Science	—	—	1	2		—	3	—	4	—	4
Drawing	2	2	2	2		2	— (2)	3	— (2)	3	— (2)
Music (optional) during recreation	(1)	(1)	(1)	(1)		(1)		(1)		(1)	
Total obligatory hours ...	24	26	28	28	— 30	27	— 28	27	— 30	27	— 30

NOTE.—The figures are in brackets where the subject is optional.

* Not including practical work.

See Antwerp Congress Papers, No. 2.

Certificats d'études moyennes professionnelles complètes are awarded by a special commission named by the Ministre de l'Industrie et Travail, to whose department technical education belongs.

B.—Higher commercial education.

The higher commercial education is provided for by the *Institut Supérieur de Commerce d'Anvers*. This is an institution whose sole object is the teaching of the commercial sciences theoretically and practically. Since 1867 there have been two degrees, *Licencié ès Sciences Commerciales* after a two years' course, and *Docteur ès Sciences Commerciales* after a third year's course. The age of admission is 16½. There is an entrance examination, to prepare for which a five months' course is provided. Holders of certain certificates are excused this examination. At the end of the first year an examination must be passed before the whole two years' course can be taken up. Special subjects may be taken up at any time, but in this case no diploma can be obtained on leaving. No proof of capacity is asked for, except in the case of the Commercial Bureau, when an examination upon the elements of book-keeping, French, elementary German, and English and commercial arithmetic is required.

After the second year, juries nominated by the Government examine and give to successful candidates diplomas conferring the title of *Licencié ès Sciences Commerciales*, which entitles the holder, if a Belgian, to a travelling-scholarship and title of *élève consul*.

The examinations are written and oral. There is a carefully selected library, an excellent commercial museum and a chemical laboratory, to which students have access, the last under the guidance of the professor of chemistry.

The subjects for the entrance examinations, which are also the subjects of the preparatory course, and those of the second and third years, and the distribution of time are as follows—

Higher Commercial Institute at Antwerp.						Preparatory course.	Second year.	Third year.
Arithmetic						3		
Algebra						2		
Geometry						2		
Physics						2		
Chemistry						2		
General history						3		
„ geography						3		
Book-keeping						3		
Civil law—General principles of law						2	—	1
Political economy and statistics						1	1	2
Commercial bureau						—	12	12
„ arithmetic						—	3	3
History of commercial products and commercial chemistry						—	2*	3*
General history of commerce						—	2	
Commercial and industrial geography						—	1	3
Commercial and maritime law—Principles of the rights of individuals						—	2	
Customs legislation						—	1	
Construction and fitting out						—	—	1
French						3		
Dutch						—	2	2
German						3	3	3
English						2	3	3
Spanish or Italian						—	3	3
Russian						—	—	3
Number of hours in the week						31	35	39

* Illustrated by chemical experiments.

(See paper read by M. Ed. Sève at the International Congress held in 1897 at the Society of Arts ; and *Etude sur les Ecoles de Commerce*, by MM. Ed. Jourdan and G. Dumont, 1886, and Antwerp Congress papers, No. 2.)

The following description of a "Commercial Bureau" is taken from a book written by Sir Philip Magnus on Industrial Education (1888).

"By the 'Bureau Commercial' is meant practice in carrying on between different classes, or *comptoirs*, mercantile transactions similar, so far as circumstances permit, to those carried on between mercantile firms in different parts of the world. For example a student in the German *comptoir* is told to suppose himself at Hamburg, and is required to purchase a certain quantity of cotton say from New York. He writes a letter in German to his supposed agent in New York, asking for particulars as to the cost of the cotton required. This letter, before being sent, is submitted to and corrected by the German professor. He receives from another student a reply written in English, in which the particulars of prime cost, package, freight, duty, &c., are expressed in the coinage and weights of the United States. This reply the student translates into French, and his translation is revised by his instructor. The transaction is then completed by forwarding a bill, which is duly made out by the student. As far as possible, all the incidents of the transaction are brought under the notice of the student, and all the office work connected with it is done in the different *comptoirs* of the school."

M. Sève, in his paper read at the International Conference of 1897, stated that the commercial bureau is for the purpose of treating fictitiously affairs of business and banking in a practical manner. The students are first practised in the calculations involved in banking and exchange, current and other accounts, exchanges, arbitration, &c., in the drawing up of bills of exchange, acknowledgments, charter parties, freight notes, &c. Each commercial document is the subject of explanations or of reference to explanations at the theoretical courses. Then the regular business of a business house is undertaken, the same for all the students, who each in turn fill all the different positions, keep the books, and carry on the correspondence, first in their own language and during the last months in the different foreign languages. In these operations account is taken of the fluctuations of the markets. Each month a balance is struck ; on the 31st May an inventory and fresh opening of the books takes place, so that each student deals with the whole of the operations and the documents relating thereto.

In the first year the matters are limited to Europe, but include commission and banking business on account of self, or in participation, or on account of some one else, consignments, freights, and forwarding. Attention is drawn to points where industrial accounts and those of firms differ from commercial and banking accounts.

In the second year the student has to deal with extended operations from the transmission to complete execution of the order, through all the intermediate steps, resulting in the sale, in transit, or on the market, making all calculations, corresponding, and drawing up all documents in their order of time. The general character of the operation only is indicated, with any special conditions, and it is for the student to carry it out to the most favourable result. These fictitious operations, based upon the actual ones as carried on in large business houses, are undertaken with the principal commercial centres, and being few can be followed easily and with interest. The different accounts are drawn in weights, measures and monies of the different countries, and the correspondence carried on in the different languages.

In 1897 another year's study was added, at the end of which there is an examination for the degree of "Licencié du degré supérieur ès sciences commerciales et consulaires." This comprises commercial affairs (bureau), commercial arithmetic, commercial law, compared rights of individuals, technology, commercial and industrial geography, political economy and statistics, French, Dutch, German, English, Spanish or Italian, constitutional and administrative law, transport and consular regulations. (See Congress paper, No. 10.)

In the same year a commercial faculty was created at the Government universities of Liège and Gand.

The degree of "Licencié du degré supérieur ès sciences commerciales et consulaires" may be obtained after not less than two years' study and two examinations, the subjects of which are as follows—

First year—

- Encyclopædia of law.
- Public rights and elementary administrative law.
- Notions of the rights of individuals.
- Consular legislation.
- Elementary civil law.
- Elementary criminal law.

Second year—

- Political economy.
- Commercial law (on land and sea).
- Public and private international law.
- Comparison of legislation.
- Statistics.
- Physical and political geography.
- Knowledge of Belgian industrial products, of merchandise (import and export), and of foreign natural products.

(See Antwerp Congress, paper No. 20.)

Holders of certain higher diplomas need only take up one year's course and one examination.

Candidates for the consular office who hold the higher diplomas referred to above, granted either by the Institut d'Anvers or the Universities, are excused any examination.

Holders of certain other diplomas are excused a part of the usual examination.

As encouragement, there are scholarships or exhibitions granted by the Cercle des Anciens Etudiants de l'Institut d'Anvers, the government, and various provincial councils.

Some commercial subjects are taught at the Ecole Supérieure des Textiles et Ecole Professionnelle de Verviers, which may be referred to here, as the classes for accountancy, political economy and modern languages have been confided to old pupils of the Institut d'Anvers.

The following figures are given by the Association Générale des Etudiants of the last mentioned establishment and may be interesting as showing its growth—

		Number of students.			
		Belgian.		Strangers.	Total.
1878-1882	...	410	...	227	637
1883-1887	...	402	...	281	683
1888-1892	...	539	...	406	945
1893-1897	...	722	...	417	1,139

The completeness of the programmes of the government schools explained the absence until lately of special schools of commerce. There is this drawback, that the first two grades are given in schools where theory only can be taught. Towns may however attach special professors to these schools on condition of paying one-third of the salary, but recently others have been started.

There are now commercial institutes at Brussels (Saint Louis), Louvain, La Louvière and Liège, and the commercial school at Gand promises to come up to the same standard.

The *Institut Roma* (Liège) has two sections, each having a three years' course. The scientific section embraces all subjects required for the entrance examination of the Institut Commercial d'Anvers.

The *Faculté Libre de Commerce de Liège* is a day school to be opened this year and organised on the model of the Antwerp Institute, and is intended for boys of 16 who have terminated their studies at the colleges or Athenées, or who by examination or certificates evidence the possession of an equivalent amount of knowledge. The course is one of two years with two examinations, leading up to the diploma (licencié en sciences commerciales). For those holding certain certificate, only one year's study is required. To take some of the features: English and German are obligatory, and a third language, either Russian, Spanish, Flemish or Italian. The commercial sciences are taught in the bureau commercial as at Antwerp. Pupils will follow certain of the courses at the university, and free courses in drawing and stenography are to be organised, also conferences. This is to be open to Government inspection, with a view to obtaining a subsidy. There are various exhibitions or "bourses" which will be open to the students.

The following special communal schools give an important place to commercial education in their curriculum—

Ecole Industrielle de Charleroi (free)—Commerce, Sunday, 1½ hours; week, 3 hours, arithmetic, book-keeping, commercial geography.

Ecole d'Industrie et de Dessin de Jumet (free)—Commerce, 2 hours; industrial economy, 1 hour; French, English and German, 5 hours.

Ecole Industrielle Commerciale et de Dessin de Chatelet (free)—Commercial sciences and industrial economy, special courses of two years.

Ecole Industrielle de Gosseles (free)—Commercial sciences, 1 hour; industrial economy, 1 hour.

Ecole Provinciale de Commerce et Industrie et des Mines du Hainaut—At the beginning of the pupil's fourth and last year he is required to choose a special subject for examination at the close of the year from a programme which comprises all the industrial and commercial subjects. The ordinary fees, which are moderate, are reduced or even remitted in many cases, and travelling scholarships are given to those obtaining diplomas. The school is well equipped.

Ecole Professionnelle pour Jeunes Filles d'Anvers—The curriculum comprises French, Flemish, English, German, arithmetic, book-keeping, geography, natural science, hygiene, dressmaking, domestic economy, drawing, manual work, singing, this being the general course. There are also special courses, amongst them one for commerce (applied arithmetic, commercial reduction, book-keeping, commercial law, and geography). The course is one of two years for the preparatory, and three for the higher classes, and can be prolonged, if necessary.

The pupils must be 12 years of age at least, and have a knowledge of the subjects taught as primary instruction. Diplomas and certificates of capacity are given at the close of studies on passing the examinations for the same.

In addition to the Government and Communal schools there are some founded by religious bodies. There is one founded at Antwerp by the Jesuits, in its six years' course, teaches the following—book-keeping, theory of commercial operations, industrial geography, commercial law, political economy, technology, modern languages (all). A diploma of capacity in commercial sciences is given by a jury drawn from commerce and the bar. There is another founded at Melle by the Josephites. This has, amongst others, commercial and industrial sections. Great importance is given to modern languages, and otherwise the curriculum is very much like that of the higher commercial schools of Lyons and Marseilles. The buildings are large and very well equipped every way.

There is a higher commercial and consular school attached to the Institut St. Joseph de la Louvière.

First year at La Louvière—German, English, Spanish, Russian, commercial bursary, commercial and industrial geography, constitutional and administrative law, civil law, commercial and maritime law, principles of law of people, public and private international law, consular, political economy, customs legislation, knowledge of Belgian industrial products and imports and exports, stenography.

Second year at Leipzig, in Germany—German, English, Spanish, Russian, commercial arithmetic, commercial legislation, book-keeping and correspondence, commercial bureau, political economy, commercial history and geography, knowledge of goods, calligraphy.

Third year in London—English, economy, statistics, research, political science, construction and maritime fitting out, banking and circulation, taxation and finance, commercial and geographical history, commercial legislation, commercial bureau, Dactylograph.

FRANCE.

A. *The higher commercial schools (Ecoles Supérieures de Commerce).*

M. Jules Siegfried says, in a paper read by him at the International Congress, held in 1897 at the Society of Arts, that there are eleven of these, and as a matter of history it is well to recall a fact which gave an impetus to the schools already in existence and led to the founding of new ones, namely, the recruiting law of 1889, which only called for one year's service from those holding diplomas from the higher grade schools recognised by the government. The effect of this was not only to increase the number of students but involved a syllabus, an entrance examination, a limit to the number of students, and a final examination by juries appointed by the government. The schools, which had been founded before 1889, were the result of individual initiative; since then they have been founded and managed by the various chambers of commerce. Since 1889, the programmes have been, if not uniform, fairly similar. They are practically the same, but each school adds special courses more particularly adapted to the wants of the district in which the school is situated. The students must be at least 16 years of age, but as a rule the age is higher, often up to 20. They are chiefly day scholars. The course is one of two years, but there is generally a preparatory school attached with a course of one year. The average length of the courses is 33 hours per week, the rest of the time being employed in writing up notes. The foundation of the teaching is the commercial bureau, where, during 10 to 11 hours per week accountancy in all its forms is taught, invoices, current accounts, journal, ledger, balance sheets, currency, weights and measures of different countries, calculations of prices, arbitrations, exchange, stocks, &c. Economic and commercial geography occupies three hours in the week; the ports and great commercial or industrial centres, production, exports and imports of different countries and their colonies, means of communication, &c., are passed in review.

A course of merchandise for three hours in the week brings the principal products before the students, and enables them to recognise the conditions which determine their value, and informs them of the commerce to which they give rise, &c. Two hours are devoted to commercial, maritime and industrial legislation, and one hour to labour, fiscal and customs legislation, and political economy.

Calligraphy occupies from one to two hours a week. Modern languages are looked upon as a fundamental part of the teaching. English, which is obligatory, takes up four hours in the week; a second language takes up the same time, either German, Spanish, Italian, or even Arabic, at the choice of the student.

Finally, each school, according to the requirements of the district, gives two to three hours to special courses, such as fitting out transports, microscopic work, technology and stenography.

(1.) *Ecole Supérieure de Commerce de Paris*—This, the oldest of these schools, belongs to the Chamber of Commerce. It has a preparatory school attached, and only receives boarders and half-boarders. Its programme differs from that stated above by a greater sub-division, which permits of specialising in mathematics, geometry and chemistry, and by associating courses of technology, mechanics, stenography and linear drawing. This necessitates an increase in the hours to 36 in the week.

Ecole Supérieure de Commerce de Mulhouse, which was founded by the "Société Industrielle," has since 1870 transferred its teaching staff to the school at Lyons.

(2.) *Ecole Supérieure de Commerce du Havre*, founded by individual enterprise and now administered by the Chamber of Commerce, only receives day scholars. Only one course is added to the general programme, namely, that of one hour in the week for fitting out.

(3.) *Ecole Supérieure de Commerce de Rouen*, founded by a society and reorganised in 1896 by the municipality, receives boarders, half boarders and day scholars. It has a preparatory course.

There are special courses for commercial microscopic work and railway tariffs.

(4.) *Ecole Supérieure de Commerce de Lyon*, founded as a company and now under the Chamber of Commerce, is administered by a council of 13 members. It has a preparatory course, and only day scholars are received. On entering the students are grouped in three sections according as they are destined (1) for banking or commerce generally; (2) for the silk commerce; (3) for that of dyeing and chemical products.

(5.) *Ecole Supérieure de Commerce de Marseilles* was opened by the Chamber of Commerce. It has a preparatory course, and only receives day scholars. This differs in having courses for Arabic and Greek, and conferences at which the students have to discuss in turn before their comrades questions of accountancy, commercial geography, merchandise, legislation, or political economy. There is also a mercantile marine section for those wishing to attain the grade of captain.

(6.) *Ecole Supérieure de Commerce et d'Industrie de Bordeaux*, opened under the direction of the Société Philomathique, in co-operation with the Conseil-Général of the town and the Chamber of Commerce. It has a preparatory course and only receives day scholars.

(7.) *Ecole des Hautes Etudes Commerciales de Paris*, founded by the Chamber of Commerce. This is the most important and the richest, and receives boarders, half-boarders and day scholars. There is an examination in French grammar, elementary arithmetic, general French history, and geography for admission to the preparatory school, the maximum age being 15. The course lasts usually one year; it may be as long as two, depending upon the age on admission.

The subjects taught are those of the examination for admission to first year of normal course. These are arithmetic, algebra, geometry, physics, chemistry, history of France, geography, accountancy (optional). Candidates are also expected to be able to translate fluently a piece of English, German, or Spanish, at choice. The subjects for the normal course of two years are commerce and accountancy. First year, 120 lessons; second year, 120 lessons.

Instruction in commercial terms, arithmetic, and algebra, applied to commerce and accountancy, is simultaneous. At the commercial classes specimens of the different documents

referred to are shown. In the arithmetic and algebra lessons part of the time is devoted to rapid calculation (mental and on paper). The theoretical teaching of accountancy is accompanied by a practical and complete keeping of books in the first year, and by extensive monographs in the second.

Modern languages. Table A, English, first year, 165 lessons; German, second year, 165 lessons. Table B, Spanish, 100 lessons; Italian, 100 lessons.

Two languages at least must be taken up, one from table A and one from table B, at choice.

Mathematics. First year, 50 lessons; second year, 25 lessons.

Studies on merchandise. First year, 60 lessons; second year, 40 lessons.

Testing goods. Analysis, first year, 12 lessons; second year, 13 lessons.

Manipulation. First and second years.

The lessons on merchandise and raw material finish up with work in the chemical laboratory by microscopic observation to discover the various fraudulent trade practices.

Economic geography. First year, 40 lessons; second year, 45 lessons.

(1) Territorial formation, population, institutions, ethnography. (2) General configuration of soil and climate. (3) Agricultural and food products. (4) Mineral products. (5) Manufactures, industrial centres, origin and why so. (6) Methods of transport and communication. (7) The foreign trade relations of the country, more especially with France. (8) Customs, commercial treaties, weights and measures, financial institutions. (9) Social condition. (10) Habits, national character, history of commerce. Second year, 20 lessons.

Elementary public law and French civil law. First year, 25 lessons.

Commercial, maritime and industrial regulations. First year, 35 lessons; second year, 58 lessons.

Foreign commercial regulations. Second year, 20 lessons.

Political economy. First year, 30 lessons.

Trade legislation. Second year, 15 lessons.

Bridge and customs legislation. Second year, 25 lessons.

Studies on transport. Second year, 16 lessons. A special point is made of railway tariffs.

Commercial plant. Second year, 20 lessons. This comprises mechanics, telegraphy, electricity, telephones, means of conveyance, handling and warehousing merchandise.

Calligraphy. First year, 20 lessons; second year, 15 lessons.

8. *Institut Commercial de Paris*, founded by individual enterprise as a company. It receives half-boarders and day scholars, the age of admission being 13, after an examination in French, arithmetic, history, general physical geography, elementary geometry, and physical science.

There is a special examination for foreigners. The following table shows the distribution of time—

Weekly distribution of time.

Institut Commercial de Paris.	1st year.	2nd year.	3rd year.
Physics	$2\frac{1}{2}$	$2\frac{1}{2}$	Here Italian, Political Economy as a separate subject and Hygiene appear for the first time.
Chemistry			
Natural History			
French	2	2	
Civil Law	1	2	
Commercial Law	1	1	
Mathematics	3	3	
Accountancy	2	2	
English	$5\frac{1}{2}$	$4\frac{1}{2}$	
German	5	3	
Spanish	5	3	
Drawing	2	2	
Conferences	$1\frac{1}{2}$	$1\frac{1}{2}$	
Exportation	1	2	
Commercial Geography	2	2	
History	1	1	
Stenography	1	1	
Calligraphy	$1\frac{1}{2}$	$1\frac{1}{2}$	
Studies, recreation, repose, visits	31 $7\frac{1}{2}$	32 $6\frac{1}{2}$	
	$38\frac{1}{2}$	$38\frac{1}{2}$	

One morning devoted to visiting industrial and commercial establishments, each student writing a report in a book kept for this purpose.

(NOTE—M. Eugène Léautey gives the table in his work *L'Enseignement Commercial et les Ecoles de Commerce*.)

9. *Ecole Supérieure de Commerce de Lille et de la Région du Nord*—Recognised by the Government and placed under the Chambers of Commerce of Lille and the neighbouring towns.

10. *Ecole Supérieure de Commerce de Nancy*.

11. " " *de Montpellier*.

These last two were only opened last year. Subsidies, exhibitions or scholarships and travelling scholarships have been granted by the Government in favour of these institutions.

Comparison of programmes of higher commercial schools, higher divisions, 1884-1886.

	Ecole Supérieure de Paris.		Ecole Supérieure de Commerce, Lyon.		Ecole Supérieure de Commerce, Marseilles.		Ecole Supérieure de Commerce, Le Havre.		Ecole Supérieure de Commerce, Rouen.		Ecole Supérieure de Commerce, Bordeaux.		Ecole des Hautes Etudes Commerciales, Paris.		Institut Supérieur d'Anvers.		Ecole Supérieure de Commerce, Mnlhouse.	
	1st year.	2nd year.	1st year.	2nd year.	1st year.	2nd year.	1st year.	2nd year.	1st year.	2nd year.	1st year.	2nd year.	1st year.	2nd year.	1st year.	2nd year.	1st year.	2nd year.
Commercial bureau ...	4½	3	12	12	9	12	12	12	11	11	10	12	8	8	12	12	12	12
Arithmetic, algebra, geometry ...	3½	3	-	-	-	-	-	-	-	-	-	-	1½	1½	3	-	-	-
Calligraphy ...	2½	1	3	2	3	2	1	1	2	2	2	1	1	1	-	2	2	-
Stenography ...	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Industrial and commercial geography ...	3	3	4	3	3	3	3	3	4	4	2	3	1½	1½	1	3	3	3
Studies in transport and commercial plant																		
Technology ...	-	1	-	-	-	-	-	-	-	-	-	-	4	3	-	-	-	-
Raw produce and merchandise ...	1½	2	2	3	3	3	3	3	2	2	3	4	3	2	3	4	4	4
Testing goods and commercial microscopic work																		
Fitting out ...	-	-	-	-	-	-	-	-	1½	1½	-	-	2nd term	1	-	-	-	-
French ...	2	-	2	2	3	1	2	2	-	-	3	1	-	-	-	-	-	-
English ...	3	-	-	-	5	4	3	4	4	4	7	7	-	-	-	-	-	-
German ...	4	2½	one at option 4		Grec. Mod. 3		3	3	4	4	}		5	5	3	3	4	4
Spanish ...	1	3½					3	3	4	4			}		}			
Italian ...	1	1	4	4	Arab.	-	-	-	-	-	2	2	3	3	3	4	7	7
Portuguese ...	-	-	-	-	-	-	1	1	-	-	-	-	-	-	Dutch.	-	-	-
Elocution conferences ...	-	-	-	-	-	2	1	1	-	-	-	-	1st term	3	2	-	-	-
Civil law ...	-	-	-	-	-	-	-	-	-	-	-	-	1st term	3	-	-	-	-
Commercial law ...	1	1½	1	1	2	1	1	1	1	1	2	3	1 March	30 June	2	-	-	-
Commercial legislation	1	-	1	1	1	1	1	1	1	1	-	-	Comparative	3rd term	1	1	3	3
Budget and customs legislation													1st term	3	-	-	-	-
Physics ...	4	1½	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-
Chemistry ...	1	1½	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-
Natural History	1½	-	-	-	-	-	-	-	1½	1½	-	-	-	-	-	-	-	-
Mechanics ...	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Linear and ornamental drawing	3	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
History of commerce ...	1½	1½	-	-	-	-	2	2	-	-	-	2	-	-	2	-	-	-
Political Economy	-	1½	-	-	-	1	1	1	-	-	1	1	1½	1½	1	2	1	1
Industrial rents	-	3½	-	-	-	1 day	-	1 day	-	-	-	1 day in summer	4	4	-	-	-	-
Hours per week	36	36	30	30	32	35	33	33	32	33	37	38	-	-	36	35	30	32
Hours of study	24	24	30	30	15	12	24	24	16	15	7	6	24	24	-	-	-	-

B. *The Ecoles Commerciales.*

(1.) *Ecole Commerciale de l'Avenue Trudaine.* Founded by the Paris Chamber of Commerce. There is no subsidy from the Government, but there are 10 scholarships given by the Ministry of Commerce and others by business establishments and individuals. The school only receives day scholars, age of admission, 12. There are preparatory courses spread over five years, held in separate buildings, where children can be admitted as soon as they can read, write, and reckon.

The subjects and distribution of time are as follows—

Preparatory courses, four sections.

Elements of French	6 hours
Arithmetic	5 „
Accountancy	1 hour
History of France	2 hours
Geography	2 „
English	2 „
Writing, varied exercises	5 „
Drawing, first principles	2 „
Literary conference, recitation... ..	1 hour

26 hours of class.

NOTE.—M. Léautey, in his book on commercial education, places the Institut Commercial, which has already been dealt with, in this group, which he terms primary and advanced primary, whereas M. Siegfried calls the first two schools secondary. He also mentions a school at Boulogne-sur-Mer as another secondary school.

Regular course of four years.

Ecole Commerciale de l'Avenue Trudaine, Paris.	1st Year.	2nd Year.	3rd Year.	4th Year.
	hours.	hours.	hours.	hours.
French	5	5	2	2
Literature	2	2	2	2
Mathematics	5	5	3	3
Accountancy	2	2	3	3
History of France	2	2	2	2
Commercial Geography	2	2	2	2
Ordinary and Commercial Law	—	—	—	2
German	2	2	3	3
English	2	2	3	3
Spanish	—	—	3	3
Caligraphy	3	3	2	2
Drawing	2	2	2	2
Stenography	—	—	—	1
Literary Conference	1	1	1	2
Scientific Conference	—	—	2	2
	28	28	30	34

At the end of the four years diplomas and certificates are given by the Chamber of Commerce to those who have been successful in the final examination.

(2.) *Ecole Pratique de Commerce et de Comptabilité*, founded by Mons. Pigier, is not subsidised by Government, but has been recognised as of public utility, and receives from the State 15 scholarships. The age of admission is from 13 to 23 years. For those in business there are courses from 8 to 10 in the evening. There are two sections—elementary and advanced—the course in each being three months. The advanced section is optional.

The subjects of the elementary course are—

1. Correspondence.
2. Indispensable principles of commerce.
3. Commercial documents.
4. Mental arithmetic.
5. Book-keeping.

Those of the advanced course are—

1. Calligraphy.
2. Principles of commerce, banking, exchange, arbitration, annuities and sinking funds, financial and industrial accountancy.
3. Different methods of book-keeping.
4. Elementary commercial law.
5. Practical work done either at the school or in town as auxiliary accountants.
6. Modern languages.

The object being to form employees in as short a time as possible, the teaching is above all practical, the pupil going through a complete course of imaginary business, in which everything is an exact counterpart of what passes in an ordinary office. Books of business houses that have ceased to exist are bought, to give the students an idea of the different methods of bookkeeping in use. At

the close of the elementary course certificates, and at the close of the advanced course diplomas, are given to those who have been successful in their examinations; but what is regarded as a still better reward is the finding of suitable positions for the students on leaving.

(3.) *Ecole Municipale Professionnelle de Rheims*, founded by the municipal council, is now a public institution subsidised by the state and having government scholarships. It receives boarders, half-boarders, and day scholars, the last mentioned without payment, the age for admission being 12.

There is an entrance examination of an elementary character, one at the end of the first year for passing into the upper division, and the final. The course is one of three years, the students being specialized at the end of the first year thus,—commercial, industrial and agricultural.

The subjects of the course and the distribution of time are—

Ecole Municipale Professionnelle de Rheims.	1st year.	Commercial section.	
		1st year.	2nd year.
French	5	3	2
German	4	6	6
English	4	6	6
Spanish	—	3	3
History	2	2	2
Geography	2	2	2
Legislation	—	2	2
Political economy	—	2	3
Accountancy and commercial bureau ...	—	6	10
Mathematics	5	5	2
Physics	2	2	2
Chemistry	3	2	2
Natural history	1	1	1
Workshops	6	2	2
Drawing—Ornamental	—	2	2
„ Industrial	6	—	—
Singing	1	1	1
Gymnastics	1	1	1
	42	40	49

It may be remarked that accountancy, modern languages and commercial geography are also taught in the industrial and agricultural sections.

The student in the commercial section on passing out, in addition to his certificate, is entitled to a travelling scholarship.

C. *Commercial evening classes.*

These classes are elementary in character. The following gives some of them in the order of their inauguration, together with the number of pupils—

Commercial evening classes in France.	1885–1886.	
	Men.	Women.
Association Philotechnique	1,260	629
Société pour l'Enseignement Professionnelle des Femmes		
Ecole Elisa Lemonnier (day course)	—	132
Commercial courses of the Grand Orient de France,		
16, Rue Cadet	634	316
Courses of the Société pour l'Instruction Élémentaire,		
14, Rue du Fovre	—	157
Courses of the Ecole Commerciale de l'Avenue Trudaine	1,000	200
Courses of commercial instruction by the City of Paris	688	671
Courses of commercial study (foundation Bamberger)...	492	—
Professional commercial courses of the Union Nationale,		
10, Rue de Lancry	480	235
Courses of elementary accountancy for young men and		
women of the Communal schools in the first arrond-		
issement	110	45
Accountancy courses out of eighth arrondissement schools		
fund	50	—
Institut Polyglotte, founded by M. Lemerrier de Jauvelle	300	93
Société Commerciale pour l'Etude des Langues Etran-		
gères	710	—
Courses of the Société Académique de Comptabilité ...	355	—
Professional courses of the Chambre Syndicate des		
Comptables	100	—
	6,179	2,478

(From M. Léautey's book on Commercial Education, where full particulars may be found.)

As examples of the subjects taught, one may take the commercial classes of the *Ecole Commerciale de l'Avenue Trudaine*, which are (a) for men, languages, arithmetic, accountancy, commercial law and drawing; (b) for women, accountancy; and the courses of the city of Paris, where the courses are two years, elementary, 10 hours per week for females, 12 for males, and one year higher grade with the same number of hours per week. Elementary subjects: for women, arithmetic, writing, book-keeping and commercial correspondence, French geography, modern languages; for men, these, with addition of technology, industrial and commercial, every-day legislation, elementary civil and commercial law. Higher grade for women: arithmetic, accountancy and commercial correspondence, French geography, every-day legislation, elementary civil and commercial law, elementary political economy, modern languages; for males: arithmetic, accountancy, French geography, international exchanges, commercial law, elementary political economy, modern languages.

No mention has been made of the instruction given in accountancy and modern languages at the establishments of general education, such as lycées and colleges, and in municipal schools of the Turgot and Chaptal type, as such commercial education as is given is merely accessory to the general.

Commercial education, or pure accountancy, does not find a place in the syllabus of elementary schools, nor of the higher ones. Neither is it to be found, as one would have expected, in the large engineering and agricultural schools.

GERMANY.

(Taken from *Etudes sur les Ecoles de Commerce*, par MM. Ed. Jourdan et G. Dumont.)

The German system of public instruction starts with the Kindergarten, which prepare for the *Volkschulen* and *Freischulen* primary schools, which all children over six must attend, followed by the *Bürgerschulen* which take them from 10 to 15. Then comes the secondary stage with the *Höhere Bürgerschulen* and the *Gymnasiums* and *Realschulen*.

It is to the first and last that those destined for business used to go, but the general character of the instruction led to the institution of commercial schools. These were founded by chambers of commerce, merchant guilds, or private syndicates, with the assistance of the chambers of commerce and municipalities. In 1866 these schools were empowered to give the certificate of capacity (equally with the secondary schools), with which a *Freiwillige* (that is one who is only obliged to serve for one year in the army) must be provided, subject always to these conditions—(1) that there should be three classes of one year each; (2) that those admitted to the lower division should be equal at least to *realschule* 4th class; (3) that the instruction in the three years should be equal to that received by those who have completed their second year at a *gymnasium* or *realschule*; (4) that the final examination should be presided over by a Government representative. Those commercial schools which have brought themselves within these conditions are regarded as schools of a higher grade.

There are special commercial schools (*Kaufmännische Fortbildungsschule*) for commercial apprentices, *i.e.*, those already in business but wishing to increase their commercial knowledge. Other schools also have classes for these apprentices.

Again, at present certain of the *gymnasiums*, *realschulen*, and industrial establishments have organised a commercial section.

Another step in advance has been taken in the institution of the *Handelshochschule*. The first one of the kind was opened in April of this year at Leipsic in connection with the university. The Chamber of Commerce has given a financial guarantee for the working of the school, and under a subvention from the Saxon government and a large yearly contribution from the city, it proposes not only to improve the technical commercial education of the young men in business, but to give to merchants, and indeed all who desire to increase their knowledge in commercial accomplishments or on any special industrial branch, facilities for acquiring information. Students must matriculate before a committee composed of the director, a member of the Chamber of Commerce, and a professor of the university. Applicants will be received as students as follows—

1. Those whose have passed the nine years' course at a *gymnasium*, *realgymnasium*, or *oberrealschule*.
2. Those of higher grade commercial schools whose highest form is equal to the highest form of those preceding.
3. Schoolmasters having passed the second examination which qualifies them to act as teachers.
4. Clerks possessing qualifications for one year's service in the army and out of their apprenticeship, and showing necessary application to benefit by the academic courses.

In case of foreigners, the matriculation committee, to whose discretion all applications are left, decide if the applicant possesses sufficient general knowledge.

The course is one of four sessions of six months each, with the following curriculum—law and political economy (to such an extent as will be both necessary and useful for general education and business), history of commerce, knowledge of articles of merchandise in general, technology, foreign languages, commercial reckoning, book-keeping, correspondence, stenography, visits to commercial and industrial establishments.

University lectures have already been arranged upon political economy, commercial policy, industrial politics, commercial and maritime law, law relating to bill transactions, introduction to studies of statistics, German colonial policy, geography and colonisation of German East Africa, general and chemical technology, insurance, mathematics with elementary exercises.

(For a detailed account of this school see an article by Mr. M. E. Sadler in Vol. III. of the *Special Reports of the Education Department*, pp. 554–627.)

Apart from the university grade, German commercial schools may be grouped thus—

A. Higher grade.

I.—Commercial schools whose diploma qualifies for a *Freiwillige* (one whose service in the army is limited to one year).

II.—*Gymnasiums*, *realschulen*, and technical schools having a special commercial section, and whose diploma qualifies for a *Freiwillige*.

B. *Secondary grade.*

III.—Commercial schools with or without a section for commercial apprenticeship whose diploma does not carry the privilege mentioned above.

IV.—Commercial schools specially intended for apprentices who are already in business.

NOTE.—A detailed list is given of the schools under this grouping in the work mentioned above. M. Léautey, in his book on Commercial Education, gives a full list grouped by localities.

A. *Higher grade—Group I.*

The subjects generally taught are German and foreign languages, commercial geography and history, accountancy, commercial science, mathematics in their application to commerce, exchange business; physical and natural sciences, calligraphy, drawing, singing, gymnastics; in some technology, study of merchandise, political economy. The age of entering is about 14, and the age of passing out from 17 up to 20 years of age. The pupils are mostly day scholars, though arrangements, when required, are made for boarding them.

In a great many of the schools, together with what might be called the secondary grade, there has been organised a lower or preparatory course, and a greatly advanced one (*Handelsschule*) comprising, in addition to foreign languages and literature, merchandise, commerce, political economy, commercial correspondence, accountancy, commercial reckoning, exchanges, commercial geography and commercial law.

The lower course is intended for those who are not sufficiently advanced for the regular course; the higher is intended for those who, having completed the regular commercial courses, desire more special and extended instructions, and those who, passing out of gymnasiums and realschulen, require to make themselves acquainted in a short time with business operations.

Some of the schools have courses for apprentices.

The following may be taken as types of this group of schools, which in 1886 appear to have numbered 17.

Allgemeine Handelslehranstalt zu Augsburg. Under the Chamber of Commerce.

Lower division (*Höhere Bürgerschule*), minimum age 15. Two years preparatory studies.

Higher division (*Höhere Handelsschule*). Two years of study. 34 hours in the week in each year.

Division for apprentices (*Lehrlingsabtheilung*). Three courses of one year each.

Oeffentliche Handelslehranstalt zu Chemnitz. Under Chamber of Commerce and Ministry of the Interior.

Higher division, must be 14 at least and pass an examination in German, French, geography, history and reckoning. Course, 37 hours in the week in the first year, and 36 in each of last two years.

Division for commercial apprentices—Three classes, each of one year, 9 hours in the week, exclusive of two optional subjects. French and English optional. There is an entrance examination in elementary German, four rules of arithmetic and fractions.

Danziger Handels Akademie—Three classes, each of one year. 32 hours in the week for class 3, and 34 each for other two. Students can go straight into any one of these classes, subject to examination, or according as they have completed their four, three or two years at a realschule.

Oeffentliche Handelslehranstalt der Dresdner Kaufmannschaft, under Ministry of the Interior—

(a) Higher division (*Höhere Handelsschule*).

(b) Division for apprentices (*Lehrlingsschule*).

(c) Commercial course (*Kaufmännischer Kurs*).

(d) " (*Handelsschule*).

(a) Minimum age, 14; capacity equal to fourth year (German, French, geography, history, arithmetic, geometry) of 1st class realschule or gymnasium; three years and a preparatory course—

Dresden Commercial School. (a) Higher Division. (<i>Höhere Handelsschule</i> .)	Prepara- tory course.	Class III. (First year's course.)	Class II. (Second year's course.)	Class I. (Third year's course.)
Commercial law	—	—	—	1
Science of commerce... ..	—	—	3	2
Commercial correspondence	—	—	2	2
Book-keeping and office operations	—	2	3	2
Commercial reckoning	5	5	3	3
German language and literature	4	4	3	3
French language and correspondence	4	4	4	4
English	4	4	4	4
General and commercial geography	3	2	2	2
" " history	3	2	2	3
Commercial political economy... ..	—	—	—	2
Chemistry	—	—	—	2
Technology... ..	—	—	—	3
Physics	—	—	3	—
Natural history	3	3	—	—
Mathematics	3	3	3	2
Calligraphy	3	3	1	—
Drawing	—	1	1	1
Hours in the week	32	33	34	6
Italian { Optional	—	—	2	2
Stenography {	—	2	2	2

(b) Minimum age, 14; capacity, primary instruction in commercial schools, German, geography, elementary arithmetic. Two years in a preparatory course.

Dresden Commercial School. (b) Division for apprentices. (Lehringsschule.)	Prepara- tory course.	Class II. (First year's course.)	Class I. (Second year's course.)
Study of commerce	—	1	1
Accountancy and office operations	1	1	1
Correspondence	—	—	1
Commercial reckoning	3	2	2
German	3	2	1
Geography	1	2	2
Hours in the week	8	8	8
Study of merchandise } optional ... {		—	1
French		2	2
English		2	2

(c) Minimum age, 14; capacity, knowledge of German, French, geography and elementary arithmetic. The course, which lasts one year, is intended for those possessing elementary knowledge and wishing to acquire before entering business such of the theoretical part as is most requisite—

(c) Commercial course (Kaufmännischer Kurs).

	Hours in the week.
Study of commerce, exchange, banking	3
Accountancy and office operations	4
Correspondence	3
Commercial reckoning	6
German	3
Commercial geography	3
Study of merchandise	3
French	5
Calligraphy	2
	<hr/> 32

Stenography, optional 2

(d) Minimum age, 16; course of one year, for those who have passed out of a first grade realschule or gymnasium, and preferably in possession of diploma—

(d) Commercial course (Handelswissenschaftlicher Kurs).

	Hours in the week.
Commercial law	2
Study of commerce and political economy	2
Commercial correspondence	2
Accountancy	4
Commercial reckoning	4
Technology, study of merchandise	3
History and commercial geography	3
	<hr/> 20

German language and literature ...	} Optional {	...	4
English ... ..		...	4
French language and correspondence		...	4
			<hr/> 12

Höhere Handelsschule und Handels—Akademie zu Gera.—(1.) A higher commercial school, divided into a superior school of commerce, with a preparatory course of 32 hours in the week, and three years' regular course; 33 hours in first, 34 in second and third. Ages of students from 14 to 20.

(2.) A commercial academy intended for those who have already completed their education but wish to acquire as quickly as possible the necessary commercial knowledge to enter into business. The course is one year. Thirty hours in the week. Ages of students run from 18 to 26.

Oeffentliche Handelslehranstalt zu Leipzig. This institution was founded by the Chamber of Commerce and subsidised by the Government, and is fully equipped with library, laboratory, and collections of products, medals, minerals and models. There are three distinct divisions.

(a) *Higher school of commerce, properly so-called Schulerabtheilung, with a course of three years.*

Leipzig. (a) Higher school of commerce.						Class III. (First year).	Class II. (Second year).	Class I. (Third year).
German ...	...	...	...	...	...	4	3	3
English ...	...	...	...	...	...	5	4	4
French ...	...	...	...	...	...	5	4	4
Mathematics ...	...	...	...	...	...	3	3	4
Commercial arithmetic...	...	...	...	...	...	5	3	2
Physics ...	...	...	...	...	...	3	2	—
Mechanical technology...	...	...	...	...	...	—	—	2
Chemistry ...	...	...	...	...	...	—	2	2
Description of articles of commerce ...	...	...	...	...	...	—	—	1
Geography ...	...	...	...	...	...	2	2	2
General history...	...	...	...	...	...	2	2	2
Commercial bureau, commercial code...	...	...	...	...	...	—	2	2
Accountancy ...	...	...	...	...	...	—	2	—
Correspondence ...	...	...	...	...	...	—	—	2
Book-keeping ...	...	...	...	...	...	—	—	3
Political and industrial economy ...	...	...	...	...	...	—	—	2
Calligraphy ...	...	...	...	...	...	3	2	—
Drawing ...	...	...	...	...	...	3	2	—
Gymnastics ...	...	...	...	...	...	2	2	2
Number of hours in the week ...						37	35	37
Spanish	} Optional and free ...	{	...	...	...	—	—	2
Italian						—	2	2
Stenography						2	1	1
						2	3	5

Ages of admission—To third class, between 14 and 16; to second, between 15 and 17; and to first, between 16 and 18.

Subjects of entrance examination—First-class (written): German composition, French and English translation, problems in the four rules, decimal fractions and rule of three; and (oral) grammar, history and geography questions. Second class: subjects taught in third class. Third-class: knowledge necessary to allow of the course being followed with profit.

(b) *Division for commercial apprentices (Lehrings-abtheilung), with a course of three years.*

Leipzig. (b) Division for commercial apprentices.						Class III. (First year).	Class II. (Second year).	Class I. (Third year).
German ... ..	...	...	...	...	...	2	1	1
English ... ..	...	...	...	...	...	—	2	2
French ... ..	...	...	...	...	...	2	2	2
Reckoning ... ..	...	...	...	...	...	3	2	2
Science of commerce ... ..	...	...	...	...	...	—	1	1
Bureau and book-keeping ... ..	...	...	...	...	...	—	1	1
Correspondence ... ..	...	...	...	...	...	—	—	1
Geography ... ..	...	...	...	...	...	1	1	—
Calligraphy ... ..	...	...	...	...	...	2	—	—
Number of hours in the week ...						10	10	10

(c) *Special advanced commercial course (Fachwissenschaftlicher Kurs.)*

The course is one year, and comprises two distinct divisions—one for regular students, who must have the one year's science certificate; the other for apprentices.

Leipzig.					Regular students.	Commercial apprentices.
(c) Special advanced commercial course.						
English language	...	...	...	...	3	—
English commercial correspondence	...	...	...	...	2	2
French language	...	...	...	...	3	2
French commercial correspondence...	...	...	...	...	2	—
Commercial law	...	...	...	...	2	1
Bookkeeping	...	...	...	...	6	2
German commercial correspondence	...	...	...	...	2	—
Political economy and science of commerce	...	...	...	...	3	1
Merchandise	...	...	...	...	2	—
Commercial arithmetic	...	...	...	...	3	2
Commercial history	...	...	...	...	2	1
Number of hours in the week					30	11
Spanish	} Optional	...	...	{	2	
Italian					2	
Calligraphy					2	

Staedtische Handelsschule in Marktbreit. First three years the same as in a realschule, only taking a commercial character in the last three. Age of admission to lowest class, 10 to 13. Admission to other courses, according to capacity.

Staedtische Handelsschule zu München. The course is six years, the hours per week being respectively 31, 31, 34, 34, 35, 35, and age of admission 10.

Staedtische Handelsschule in Nürnberg. Here there are three years in the preparatory, and six in the regular courses, the age in the former being from 7 to 10, and in the latter 10 to 16.

Höhere Handelsschule zu Stuttgart. Division A—Four courses of six months each, 36 hours in the week, exclusive of the three optional subjects, Spanish, Italian and stenography for three highest forms. The lowest, which may be considered as preparatory, has only 35. Division B—A one year's course, 30 hours in the week, intended for those who have completed their general education.

A. *Higher Grade—Group II.*

To the gymnasiums, which are classical schools and have a nine years' course, those intended for the liberal professions go. Those intended for business go to the realschulen, which are of two kinds—

1. Real gymnasium, where Latin is taught, or
2. { Oberrealschule, with a nine years' course. } Modern schools.
{ Realschule, with a seven years' course. }

The subjects taught in the realschulen are (in addition to Latin, which is optional), modern languages, geography, mathematics, natural sciences, drawing, singing, gymnastics. The first three years are given to finishing in the elementary subjects, and preparing for special schools; the last are then devoted to special education.

In the schools which have a commercial section (of which in 1886 there appear to have been 6) this section is looked upon only as accessory, and does not therefore attract many pupils. These commercial sections are regarded as higher grade commercial schools. The following may be taken as types of this class—

Königliche Gewerbe und Handelsschule zu Kassel—The commercial course is for one year. The subjects being—

	Hours per week.
German	2
French	3
English	3
Commercial history and geography and political economy	7
Mathematics and commercial reckoning	3
Chemistry and study of merchandise	3
Accountancy and exchange	5
Commercial correspondence and science of commerce	4
Technology	3
Calligraphy	2
	35

Realgymnasium nebst Handelsschule zu Frankfurt-am-Mein—Students in the commercial section follow a special course in the last two years, distributed as follows—

Commercial school at Frankfort.	Class II. (First year).	Class I. (Second year).
Religion	2	—
German	3	3
French	6	6
English	5	5
History and geography...	3	3
Mathematics and reckoning	5	5
Chemistry	2	2
Calligraphy	2	1
Drawing	2	2
Political economy	2	2
Commercial law	2	2
Science of commerce and book-keeping	2	2
Gymnastics	2	2
Hours in the week	38	35
Italian or Spanish } optional {	—	2
Laboratory work } optional {	2	2

Königliche Realschule mit Handelsabtheilung zu Furth.—There is a special division for day scholars intended for business, who receive special instruction in their last two years in calligraphy and the science of commerce (accountancy, law, &c.), and a special division for commercial apprentices. These are free evening classes.

Two years' course.	First year.	Second year.
Commercial arithmetic... ..	1	1
Science of commerce	1	1
Commercial history and geography	1	1
	3	3

B. Lower Grade—Groups III. and IV.

We now come to the lower grade commercial schools under Groups III. and IV. Most of these are for apprentices (*Fortbildungsschule*). The courses are from two to four years, 10 to 12 hours in the week being taken up before 10 in the morning and after 6 in the evening. These *Fortbildungsschulen* are most numerous in Saxony, where since 1873 attendance after leaving a primary school from 14 to 17 years of age has been compulsory. A list of those leaving primary schools is furnished to the directors, and foreign apprentices are obliged to register themselves.

The subjects generally are—Modern languages (more especially French and English), reckoning, science of commerce, correspondence, bureau and book-keeping, calligraphy, geography, study of merchandise. There are day courses in some of the schools, but where the time can be given it is preferable to go to a higher grade school, many of which now have special courses for apprentices. Attention should be drawn here to the existence in Germany of mixed commercial schools and those specially intended for girls. As an example of the former may be cited the *Vereinigte Handels-Akademie und Höhere Fortbildungsschule zu Dresden*. Of the latter may be cited the commercial and industrial girls' school at Leipzig, founded by Dr. Otto Ziebig in 1863, and the commercial girls' school at Munich, founded in 1862. Admission to this last is from 13 to 17 years of age. Course of studies, two years, divided into two graduated courses. (See Léautey in his book on Commercial Education already referred to.)

Group III.

The following may be taken as types of Group III.—

Oeffentliche Handelslehrenanstalt zu Bautzen, having three divisions.

1. Higher grade commercial division. Age of admission, 14 years. Capacity—(1) Ability to write a German story without serious orthographical and grammatical mistakes; (2) knowledge of French grammar up to regular verbs inclusive; (3) arithmetic (4 rules, fractions, vulgar and decimal, proportion and rule of three); (4) geography and history. Pupils may go straight into Class I. after examination in subjects of Class II. The course is one of two years.

2. Special commercial course and preparation for one year's service (*Freiwillige*). Two courses of one year each—A, intended for those who have passed out of higher grade division or apprentices' schools and wish to prepare for one year's service (*Freiwillige*); B, intended for those who are already in business, or who passed out of *realschulen* and *gymnasiums*, and can only spare one year for commercial subjects. The ages of those attending these courses are from 16 to 21.

3. The courses in this division, which are for commercial apprentices, are essentially practical, and last three years. The age of admission is 14, and an examination in German, elementary arithmetic, and geography must be passed. For entrance into the first or second class, an examination in the subjects of the lower class must be passed.

The following table shows the subjects and time allotted in the different divisions—

Commercial Institute at Bautzen—Three divisions.	Division 1.		Division 2.		Division 3.		
	Class II. (First year).	Class I. (Second year).	Course A	Course B	Class III. (First year).	Class II. (Second year).	Class I. (Third year.)
			Alternative.				
Science of commerce and political economy ...	2	3	—	3	—	2	2
Accountancy and bookkeeping ...	3	3	—	3	2	2	1
Commercial arithmetic ...	6	5	—	3	4	2	2
„ correspondence ...	2	1	—	3	—	1	1
German language and literature...	4	3	3	—	4	2	1
French language and correspondence ...	6	6	3	—	3	2	2
English „	5	5	3	—	—	2	2
General and commercial geography ...	2	2	2	—	—	2	2
„ „ history...	2	2	2	—	—	2	2
Natural history ...	—	2	2	—	—	—	—
Calligraphy ...	2	2	—	3	2	—	—
Mathematics ...	—	—	6	—	—	—	—
	34	34	21	15	15	15	15

Salomon's Handels-Akademie zu Berlin.—A commercial school with a three months' course, giving 22 hours in the week to commercial mental reckoning, book-keeping, accountancy, commercial correspondence, calligraphy, commercial geography, commercial law, banking and exchange, French, English, German, and stenography. Also day and evening classes for both sexes, twice a week for three months, the subjects being, for males—book-keeping, commercial reckoning, exchange, correspondence, commercial law; for females—book-keeping, elementary reckoning, commercial law, correspondence, calligraphy, general business knowledge, stenography, optional courses in French and English.

Städtische Handelsschule zu Hanover—(a) Elementary division—Five classes of six months each, held in early morning—

Commercial School at Hanover—Elementary division.	Class V. (First semester).	Class IV. (Second semester).	Class III. (Third semester).	Class II. (Fourth semester).	Class I. (Fifth semester).
German ...	2	1	1	1	1
French correspondence ...	2	2	2	2	2
English „	—	2	2	2	2
Commercial reckoning ...	3	3	3	2	2
Book-keeping ...	—	—	—	2	2
Commercial science ...	1	1	1	1	1
Correspondence ...	—	1	1	1	1
Commercial geography ...	1	1	1	1	1
Calligraphy ...	2	1	1	—	—
Number of hours in the week	11	12	12	12	12
Stenography (optional)...	—	—	—	2	2

(b) Special commercial course; intended for those who have passed the first class of the elementary division, or have passed the upper division of the second class of a gymnasium. The subjects are—

Book-keeping ...	2
German commercial correspondence ...	1
Commercial reckoning ...	2
Chemical technology ...	1
Commercial law ...	1
Laws of exchange ...	1
Commercial French correspondence ...	2
„ English „	2
Hours in the week...	12

There are exhibitions and allowances to needy pupils.

Handels-Lehranstalt für Commis und Junge Geschäftsleute—Division for business clerks, ages from 18 to 30, held 6 to 9 a.m. and 6 to 9 p.m., two hours per week being given to each subject. Course of three years. Subjects: modern languages, including correspondence, commercial law, science

of commerce, book-keeping, commercial geography and statistics, technology and study of merchandise, commercial reckoning, calligraphy. Division for regular pupils, from 14 years of age. Course of two to three years. In this division the curriculum covers somewhat more ground than the other.

Group IV.

The following may be taken as types of Group IV.—

Handelsschule zu Braunschweig von A. Henze. Course covering three years. Two hours' instruction is given in the early morning and two hours' in the evening; 11, 12 and 13 hours per week, respectively, being allotted to the three years. The syllabus comprises English, French, German, book-keeping, reckoning, geography, bureau and banking, calligraphy, stenography.

Vereinigte Handels-Akademie und Höhere Fortbildungsschule zu Dresden—This has the three following divisions: Higher commercial school, with duplicate half-yearly courses; higher preparatory school; special course for adults of both sexes.

Handels-Akademie zu Hamburg. (a) Commercial course for apprentices: German, stenography, French and English grammar, book-keeping, single entry (three lessons per week). (b) Commercial course for clerks: German language and correspondence, commercial arithmetic, commercial geography, French and English correspondence and conversation, practical office work. (c) Course for bookkeepers: German, French, English, practical office work. (d) Course for adults: Calligraphy, bookkeeping, commercial arithmetic, writing, commercial geography, stenography, modern languages, algebra, geometry, trigonometry.

The lessons are given morning and evening.

Handlungslehrlingsschule zu Meissen—Pupils are admitted between the ages of 14 and 18, and must have passed through a primary school.

Commercial school for apprentices at Meissen.							Class IV. (Second year.)	Class III. (First year.)	Class II. (Third year.)	Class I. (Fourth year.)
German ...	...	...	...	...	...	...	3	3	2	1
French ...	...	...	...	...	...	...	—	3	2	2
English ...	...	...	...	...	...	...	—	—	2	2
Science of commerce	...	...	...	...	...	...	—	—	1	2
Accountancy ...	...	...	...	...	...	...	—	1	1	1
Reckoning ...	...	...	...	...	...	...	3	2	1	1
Geography ...	...	...	...	...	...	...	2	1	1	1
Geometry ...	...	...	...	...	...	...	2	—	—	—
Natural sciences	...	...	...	...	...	...	1	—	—	—
Political economy	...	...	...	...	...	...	1	—	—	—
Drawing ...	...	...	...	...	...	...	5	—	—	—
Number of hours in the week ...							17	10	10	10

AUSTRIA-HUNGARY.

The educational system is organised on the same lines as the German, save that primary instruction is only free in some parts and nowhere obligatory.

The commercial schools in Austria may be grouped thus—

- I. Academies of commerce, whose diploma qualifies for claiming one year's military service only.
- Part of supply of Secondary Education. { II. Commercial schools with or without a section for apprentices, whose diploma does not so qualify.
- III. Commercial schools specially for commercial apprentices.

(NOTE.—See for full full lists and details *Etude sur les Ecoles de Commerce*, by MM. Ed. Jordan and G. Dumont, 1886; and *L'Enseignement Commercial et les Ecoles de Commerce*, by M. Eugène Léauté.)

Group I.—Academies of Commerce.

The academies (of which there were nine in 1886, six subsidised by the State) are day schools under Government supervision. For admission the pupil must be 14 years of age, have completed satisfactorily the four years' course in an unterrealschule, untergymnasium or real-gymnasium, intermediate schools giving diplomas on leaving; in default of such diploma, he must pass an examination. The diploma, on passing out, only gives the one year's service privilege to students who held a certificate on entering the school. As compared with Germany, the instruction differs only in being somewhat more practical. The following may be taken as types of this group—

Handels-Akademie mit Kaufmännischer Fortbildungsschule zu Linz. It possesses a laboratory, museum of merchandise, collections of natural history, maps, and physical instruments. There are two divisions of the academy; (a) the commercial academy proper, and (b) the course for commercial apprentices.

(a) *Course of the Commercial Academy proper.*

This course extends over three years, and also has a preparatory course.

(a) Commercial Academy and Mercantile Continuation School at Linz.	Preparatory course.	Class I. (First year's course.)	Class II. (Second year's course.)	Class III. (Third year's course.)
Religious instruction	2	—	—	—
German	4	3	3	3
French	3	4	4	4
English or Italian	—	3	3	3
Geography	3	2	2	2
History	2	2	2	2
Arithmetic	5	—	—	—
Geometry	3	2	1	—
Algebra	—	2	2	—
Natural history	3	3	—	—
Physics	2	2	2	—
Commercial instruction—Counting-house ...	—	3	—	—
Book-keeping and correspondence ...	—	—	4	—
"Sample" department of the counting-house ...	—	—	—	5
Commercial arithmetic and usages ...	—	3	3	4
Chemistry and chemical technology ...	—	—	2	2
Study of merchandise	—	—	2	2
Political economy	—	—	—	2
Commercial and industrial legislation ...	—	—	—	3
Calligraphy	2	2	2	1
Number of hours in the week ...	29	31	32	33
Practical exercises in laboratory } Optional {	—	—	2	2
Stenography	—	—	2	2
Gymnastics	2	2	2	2
Total	2	2	6	6

In addition to regular students, whose ages vary from 14 to 20, there are *Hospitanten* (free listeners) who only follow some of the courses. These last can obtain a certificate, but no special privilege attaches to it. Students may pass straight into Classes II. and III. on proving by examination they are fit for same.

(b) *Course for commercial apprentices.*

This course extends over three years, instruction being given in the evenings and on Sundays. The course is obligatory on all employees, unless they can furnish proof that they have passed successfully through a commercial school.

(b) Course for commercial apprentices at Linz.	Class I. (First year.)	Class II. (Second year.)	Class III. (Third year.)
German	3	—	—
Geography	2	2	—
Commercial arithmetic... ..	2	2	1
Book-keeping	—	1	1
Correspondence and bureau	—	2	2
Commercial law and exchange	—	—	2
Calligraphy	1	1	—
Study of merchandise	—	—	2
	8	8	8

Prager Handels-Akademie—This was the first higher commercial establishment in Austria, and has served as a type for the others.

It differs from the last in having no preparatory course. The following is the time table—

Commercial Academy at Prague.	Class I. (First year.)	Class II. (Second year.)	Class III. (Third year.)
Study of commerce	1	1	—
Accountancy operations and correspondence...	2	—	—
Commercial correspondence and book-keeping	—	4	5
Commercial arithmetic... ..	3	3	3
Usages and calculations for merchandise ...	—	—	1
Algebra	2	1	—
Geography	2	2	2
History	2	2	2
National economy	—	—	2
Commercial law... ..	—	—	2
Natural history	2	—	—
Physics	2	1	—
Chemistry	—	2	2
Study of merchandise	—	2	3
German language	4	3	3
French language and correspondence...	4	5	4
English	4	3	3
Calligraphy	2	2	1
Number of hours in the week	30	31	33
French lessons for beginners	1	—	—
Italian language and correspondence	3	3	3
Czech language and correspondence	2	2	2
Practical chemistry	—	—	2
Stenography	2	2	1
Number of hours in the week	8	7	8

Group II.—Secondary Commercial Schools with or without a section for apprentices.

The following are types of this group, which are mostly day schools—

Handels Lehranstalt zu Aussig—This is a private day school consisting of the following four sections—

(a) *Higher Commercial School.*

To enter the first class of this section a boy must have followed the class courses of a secondary school. The course lasts two years. The ages of pupils range from 15 to 19.

Secondary Higher Commercial School at Aussig.	Class I. (First year.)	Class II. (Second year.)
Commercial arithmetic	4	4
Book-keeping and bureau	5	7
Correspondence	4	4
Exchange	2	2
Study of commerce, political economy	2	2
Commercial geography	2	2
History of commerce	1	1
Merchandise	2	2
German language	3	2
Calligraphy	2	2
Number of hours in the week	27	28
French } Optional	3	3
Bohemian }	3	3
Stenography }	1	1
	7	7

(b) *Special commercial course.*

This is a one year's day course intended for those who have followed the upper classes of a secondary school and cannot devote much time to their commercial education.

		One year's course. Number of hours per week
Commercial arithmetic...	...	8
Accountancy and bureau	...	12
Correspondence	...	8
Study of commerce and political economy	...	2
Exchange	...	2
Calligraphy	...	2
Number of hours in the week	...	34

(c) *Evening course.*

This course, which takes place from 7.30 to 9 in the evening, is intended for apprentices.

(d) *Private course.*

This only lasts four months, and deals with the following subjects—accountancy, correspondence and bureau, commercial law, exchange, calligraphy.

Handelsschule in Innsbruck, founded by the Chamber of Commerce and subsidised by the Government. Pupils are not admitted under 14 years of age. Admission to Class I. is granted to those who have passed through the preparatory course or possess a qualifying certificate; admission to Class II. is granted to those who have passed through Class I. or who pass a qualifying examination.

(a) *School of commerce proper.*

School of commerce at Innsbruck.	Prepara- tory course.	Class I. (First year's course.)	Class II. (Second year's course.)
Religious instruction	2	—	—
German	4	3	2
Italian	2	3	3
Geography	3	2	2
History	2	2	2
Arithmetic and commercial reckoning ...	5	3	3
Geometry	3	—	—
Natural history	3	2	—
Physical sciences	3	3	—
Bookkeeping	—	3	3
Commercial correspondence and office operations	—	3	2
Exchange	—	2	1
Science of commerce	—	2	—
Political economy	—	—	2
Commercial and maritime law	—	—	3
Study of merchandise and technology ...	—	—	5
Calligraphy	—	1	1
Number of hours in the week ...	27	29	29
French } English } Stenography } Optional { Gymnastics }	{ — — — 2	{ 3 3 2 2	{ 3 3 1 2
Number of hours in the week ...	2	10	9

(b) *Special courses for apprentices.*

These last six months, two lessons of two hours each being given in the week.

Mühlbauer'sche Handelsschule in Wien.—This school has the following sections—

- | | |
|--------------------------------------------------------------------|--------------------------------------------------|
| (a) <i>Division for regular day scholars (a two years' course)</i> | } Mühlbauer's
Commercial School
at Vienna. |
| (b) <i>Special course for adults</i> | |
| (c) <i>Special Sunday course</i> | |
| (d) <i>Special course on insurance</i> | |
| (e) <i>Course for women and girls</i> | |

Pupils whose ages range from 14 to 20 must have followed the courses of a primary school. The subjects taught and the hours given to them in the week are—

Book-keeping, science of commerce, bills of exchange, French and English, three hours each; commercial correspondence, commercial geography, German, study of merchandise, calligraphy and stenography, two hours each, 27 in all.

Group III.—Secondary commercial schools specially for apprentices.

These schools were intended to complete the commercial education of commercial apprentices and employees, and were nearly all founded by syndicates or associations. The instruction lasts from 2 to 4 years, and is given by means of various special courses. The ages of those who attend vary from 14 to 20.

The following may be taken as a type of this group—

Gremial-Handels-Fachschule der Wiener Kaufmannschaft.

This, one of the most important, was founded by the Chamber of Commerce of Vienna, and is

subsidised by the Government. The course is obligatory upon apprentices and clerks who have not been to a commercial school and lasts for four years. The ages of those attending vary from 14 to 21.

Special school for commercial apprentices at Vienna.	Class I, Lower Division. (First year.)	Class I, Upper Division. (Second year.)	Class II. (Third year.)	Class III. (Fourth year.)
German	3	2	—	—
Accountancy, single entry	—	—	2	—
Accountancy, double entry	—	—	—	2
Commercial correspondence	—	—	2	1
Arithmetic	2	—	—	—
Commercial arithmetic... ..	—	2	2	2
Commercial law and law of exchange	—	—	1	—
Commercial geography... ..	—	—	1	—
Study of merchandise	—	—	—	1
Natural history... ..	—	1	—	—
Calligraphy	1	1	—	—
Number of hours in the week	6	6	8	6

HOLLAND.

(Taken from *Etude sur les Ecoles de Commerce*, by MM. Ed. Jourdan and G. Dumont.)

In Holland there is little, if any, higher commercial education. Such special commercial education as exists is to be found in the *higher intermediate schools*. These schools exist in nearly all the towns, drawing their pupils from them and the adjoining rural communes. Since 1864, when they were founded, there has been a steady increase in the number of pupils who are day scholars, but it is also to be observed that few remain for the full course. There is no rule as to age, but students are seldom found below the age of 12 to possess knowledge sufficient for reception even into the lowest class. In some of the schools there is a preparatory class. The schools, which are divided into those with triennial and those with quinquennial courses, are more especially suitable to those embarking upon a commercial career, the curriculum comprising, as it does, the following subjects—mathematics, physical and natural sciences, cosmography, history, geography, Dutch language and literature, foreign languages and other literature, administrative law, social economy, commercial sciences, book-keeping, calligraphy, drawing.

Where these schools do not exist, there are to be found what really are commercial courses annexed to primary municipal schools—

As types of the higher intermediate schools the following may be cited—

Openbare Handelsschool, Amsterdam.

The commercial school consists of a two years' course of special studies, superimposed on the three years' general course of an ordinary municipal school.

Public commercial school at Amsterdam.	First year of special commercial studies.	Second year of special commercial studies.
Dutch	3	3
French	5	4
German	5	5
English	4	4
Commercial geography	2	2
History of commerce	2	1
Commercial arithmetic and algebra	3	3
Study of merchandise and commercial chemistry	3	3
Political economy	2	2
Commercial law	—	2
Book-keeping	2	2
Calligraphy	1	1
Spanish, Italian, Swedish, stenography, optional	—	—
	32	32

Twentsche Industrie en Handelsschool, Enschede. This school was founded by the Twentsche Association at Enschede. The course extends over six years, the age of the pupils varying from 12 to 20.

Twentsche commercial school at Enschede.	Class I. (First year.)	Class II. (Second year.)	Class III. (Third year.)	Class IV. (Fourth year.)	Class V. (Fifth year.)	Class VI. (Sixth year.)
Algebra	8	7	8	5	2	—
Use of tools, technology, mechanics	—	—	—	—	3	7
Physics	—	—	—	2	2	2
Chemistry and technology	—	—	—	2	4	4
Knowledge of merchandise	—	—	—	—	—	4
Practical chemistry	—	—	—	—	1	8
Natural history	—	1	1	—	2	—
Cosmography	—	—	—	1	—	—
Organisation of States	—	—	—	1	—	—
Political economy	—	—	—	—	1	—
Geography	2	2	2	2	1	—
History	2	2	2	2	—	—
Dutch	5	4	3	2	1	—
French	4	3	3	3	2	—
English	—	3	3	3	4	—
German	—	4	4	4	2	—
Book-keeping and commercial reckoning	—	—	—	2	1	—
Calligraphy	1	—	—	—	—	—
Drawing	4	3	3	2	3	5
Number of hours in the week	26	29	29	31	29	30

Commercial and Industrial School, Haarlem.

This school was founded by the municipality in 1880. The course lasts for three years.

Commercial and industrial school at Haarlem.	Class I. (1st year.)	Class II. (2nd year.)	Class III. (3rd year.)
Dutch	4	3	3
French	6	3	3
English	—	6	5
German	6	4	3
Geography	2	2	2
History	2	2	2
Dutch administrative law	—	—	1
Arithmetic	4	3	3
Algebra	1	1	1
Geometry	1	1	1
Book-keeping, calligraphy	1	1	2
Natural science	2	3	3
Gymnastics	1	1	1
Drawing	2	2	2
Number of hours in the week ...	32	32	32

ITALY.

(NOTE.—See *Etude sur les Ecoles de Commerce*, by MM. Ed. Jordan and G. Dumont, 1866, and *L'Enseignement Commercial et les Ecoles de Commerce*, by M. Léautey. M. Léautey in his lists and particulars of the educational establishments arranges the time-tables somewhat differently.)

Elementary education is free, and is of two grades, the lower comprising, in two years of study, reading, writing, Italian, arithmetic, and the metrical system; the higher comprising, in two years of study, elementary literature, calligraphy, book-keeping, geography, natural history, elementary, physical and natural sciences and their application to everyday life. The above is common to both boys' and girls' schools, and in addition, there is taught in the former geometry and linear drawing, and in the latter, some work appropriate to the sex. The children come out at about 10 or 11 years of age, and there are then open to them two lines of secondary education between which a choice has to be made, viz., a classical education in the gymnasium and lycée and technical education in the technical school and technical institute; the classical education being intended for those about to embrace the liberal professions, and the technical for those destined for commerce, industry or agriculture. In the former case the student passes five years at a gymnasium and another three at a lycée, from which last he passes out with a "licence lycéale" for the universities or higher grade schools. In most cases boys are sent to a gymnasium, lest they should later wish to enter one of the liberal professions and be debarred, a fact which is detrimental to the technical schools.

Technical schools, which are very numerous, are, though classed as secondary, really the first grade of technical education. They belong, some to the State, others to provinces or communes, but are all under the Ministry of Public Instruction. The course, which is one of three years, is as follows, the ages of the pupils being from 11 to 14—

Course of technical schools in Italy.	Class I. (1st year.)	Class II. (2nd year.)	Class III. (3rd year.)
Italian	7	5	5
History and geography	4	4	4
Rights and duties of a citizen... ..	—	—	1
French	—	6	5
Mathematics	5	4	3
Accountancy	—	—	5
Natural sciences	—	2	3
Drawing	6	4½	4½
Calligraphy	3	3	1
Number of hours in the week... ..	25	28½	31½

Those who pass a satisfactory examination on leaving these schools at about 14 years or less receive a diploma called "licenza." Most of these go straight into business, about one-third continuing their studies in technical institutes.

Technical institutes, which in 1886 numbered 76, belong in some cases to the State; in others they are private establishments, being created as wanted in the different districts; but all belong to the department of the Minister of Public Instruction. Students of technical schools are admitted on presentation of their diploma; those passing out of a gymnasium have to pass in calligraphy, drawing, French, mathematics, and the rights and duties of a citizen. All others have to pass in subjects taught in technical schools. The course is one of four years, divided into five sections, that of the commercial section being as follows—

Commercial section of technical institutes in Italy.	Class I. (1st year.)	Class II. (2nd year.)	Class III. (3rd year.)	Class IV. (4th year.)
Italian... ..	6	6	4	4
French... ..	3	3	3	—
German or English	—	5	5	4
Geography	3	3	3	—
History	3	3	3	—
Mathematics	6	6	—	—
Physics	—	—	3	3
Elementary law... ..	—	—	3	—
Positive private law	—	—	—	3
Political economy, statistics	—	—	3	3
Accountancy, book-keeping	—	—	6	9
Natural history	—	—	3	3
Chemistry	—	—	—	3
Drawing	8	6	—	—
Practical chemical exercises	—	—	—	4
Number of hours in the week... ..	29	32	36	36

These institutes give diplomas which entitle the holders to claim one year's service only in the army.

The two above-mentioned kinds of establishments, though doing good service and providing industry, agriculture and commerce with most of their employees, were found not entirely to meet the wants of the present day. Hence the following higher commercial institutions were established.

La Regia Scuola di Commercio con Banco Modello in Bari. This is a free day school founded by the Chamber of Commerce and Arts, in receipt of subsidies, having travelling scholarships, and admitting free listeners. Candidates for admission to the preparatory course must be 16, and pass an examination in Italian, French, arithmetic, elementary algebra, elementary book-keeping, geography and history; certain certificates excuse the whole or part of this. Candidates for admission to Class II. must pass an examination in the subjects of the preparatory course or have a certificate of an institute or a lycée.

1st year (preparatory course).—Italian literature, history and geography, French literature, English or German, elementary civil law, commercial reckoning, accountancy, chemistry as applied to commerce, calligraphy.

M. Léauté, in his work already mentioned, says, the accountancy taught was too theoretical, though some institutes have organised a bureau. The Turin and Genoa institutes do fictitious business together, and the former has a practical banking school.

2nd year.—Italian literature, French language, English or German, commercial reckoning and banking, comparative commercial legislation, general principles of political economy, history and geography of commerce, chemistry, study of merchandise, finishing in book-keeping and correspondence in four languages, practical commercial institutions, banking and special exercises, calligraphy.

3rd year.—Italian literature, French, English or German, commercial reckoning and banking, accountancy, comparative commercial legislation, political economy as applied to industry, principles of statistics, international law, customs legislation, commercial history and geography, chemistry, study of merchandise, banking with practical exercises in different foreign languages.

Scuola Internazionale di Commercio e il Convitto Municipale Peroni, in Brescia. Founded by the municipality of Brescia, and takes boarders as well as day scholars. The course is one of two years' preparatory and four years' regular studies. The students pass an examination to enter, to pass from one class to another, and for the diploma (di licenza)—

International commercial school at Brescia.	Preparatory course.		Regular course.			
	Lower.	Higher.	1st year.	2nd year.	3rd year.	4th year.
Italian	—	6	5	3	2	2
French grammar, &c.	5	5 } 10	4 } 7	2 } 5	2 } 4	1 } 2
„ conversation	—	5 }	3 }	3 }	2 }	1 }
German grammar, &c.	—	3	4 } 8	5 } 10	3 } 7	2 } 5
„ conversation	—	—	4 }	5 }	4 }	3 }
English grammar, &c.	—	—	—	4	4 } 8	4 } 10
„ conversation	—	—	—	—	4 }	6 }
Arithmetic and elementary algebra	—	5	3	2	2	—
Commercial arithmetic	—	—	3	3	2	1
Accountancy	—	—	3	3	2	2
Commercial practice (banking) ...	—	—	—	—	4	6
Commercial history and geography	2	3	2	2	1	1
Morals	—	2	2	2	—	—
Physical and natural science, study of merchandise	—	1	2	2	2	2
Civil and commercial law	—	—	—	—	3	2
Elementary political economy	—	—	—	—	2	3
Calligraphy	—	3	2	1	—	—
Industrial drawing	3	3	2	2	2	2
Gymnastics, &c.	3	3	3	3	2	2
Subjects of an elementary 4th class	23	—	—	—	—	—
	36	39	42	42	43	40

La Regia Scuola Superiore di applicazione per gli studi commerciali in Genova. Founded by the government in conjunction with the Province, Commune and Chamber of Commerce, on receipt of subsidies, and having travelling scholarships. For admission pupils must be 16 years old, and pass an examination in Italian literature, physical and political geography, arithmetic, algebra to equations, natural history, French, and the elements of physiology, of chemistry as applied to commerce, of accountancy and reckoning, of political economy and statistics, of civil and commercial law. Candidates are excused this examination who have obtained the diploma of the commercial and accountancy section or any other section of a technical institute or of a foreign equivalent institute, provided an examination in Italian is passed, or of a nautical institute.

The course is one of two years, the subjects being—

1st year—Commercial technology ...	Mathematics applied to commerce. Accountancy, reckoning, commercial institutions, with banking. Merchandise.
2nd year—Economic and judicial sciences	Industrial and commercial economy, statistics, science of finance. Law. Commercial geography, commercial and navigation treaties.
3rd year—Literary culture and philology	Italian letters. French, English, Italian, German, Spanish, Arabic. (French, English and German obligatory; anyone taking up Arabic can leave out English or German.)

Scuola Speciale di Commercio in Torino. Private day school, whose diploma, though not available for one year's service, is taken into serious consideration by the examining commissioners. Candidates for admission must be 13½ years of age, must hold a diploma of a gymnasium or technical school, or pass an examination. 25 hours in the week are given in each year to Italian, French, English and German languages, correspondence in the above languages, arithmetic, banking and commercial operations, accountancy, law, history, geography, political economy, study of merchandise, calligraphy.

La Regia Scuola Superiore di Commercio in Venezia.—Day school, founded by the Provincial and Municipal Councils and the Chamber of Commerce; in receipt of subsidies, and having scholarships, and admitting free listeners. This has a threefold character, namely, that of a higher commercial school for those wishing to finish their commercial education; of a judicial faculty for candidates for consular appointments; and of a normal school to prepare for the teaching of commercial sciences and foreign languages in technical institutes and other special schools.

For admission to the first year course the pupil must be 16 years of age and pass an examination, unless possessed of a diploma from a technical institute in the following subjects—Italian language and literature, geography, history, arithmetic, algebra, physiology, natural history, French, accountancy, calligraphy.

To pass straight into the second year course the pupil must be 17 years of age and must pass an examination in the first year's subjects.

The courses vary with the classes into which the instruction is divided, namely—

I. Commercial class, a 3 years' course.

II. Consular course, a 5 years' course.

III. Class for aspirants to grade of professor—

For the teaching of law, political economy, and statistics, a course of 5 years.

For the study of merchandise, a course of 4 years.

For accountancy, a course of 4 years.

For French, English or German, a course of 5 years.

At the close of each course a certificate of having passed through the course is given. Those in Class III. can, on passing a special examination, obtain a certificate of aptitude for teaching.

The subjoined table gives a comprehensive view of the courses of study pursued at the Higher Commercial School at Venice—

HIGHER COMMERCIAL SCHOOL AT VENICE--PROGRAMME OF INSTRUCTION.

* An asterisk signifies that the subject forms part of the course.

Subjects of instruction. [The minimum age of entry for the first year's course is 16.]	First year.		Second year.				Third year.				Fourth year.				Fifth year.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
	Commercial course.	Course for the training of teachers of languages.	Commercial course.	Consular class.	Classes for training teachers of				Consular class.	Classes for the training of teachers of				Consular class.	Law, political economy, statistics.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
					Law, political economy, statistics.	Merchandise.	Accountancy.	Foreign languages, French, English, German.		Law, political economy, statistics.	Merchandise.	Accountancy.	Foreign languages, French, English, German.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
Italian literature ..	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

a Those who take up French attend practical commerce class to correct French correspondence and accountancy.

b Students attend in practical commercial class to correct and supervise the correspondence accounts.

c Students attend in practical commercial class to correct and supervise the foreign correspondence.

d Exercises on subject.

SWEDEN AND NORWAY.

There is ample provision in the technical and industrial schools of Sweden and the middle grade schools of Norway for those destined for industrial careers, but for those who intend entering business it is meagre. In the Stockholm Industrial School calligraphy and book-keeping are taught, and in the Norwegian middle grade schools accountancy and political economy are taught in the practical scientific class.

There are the following commercial schools—

Franz Scharf's Praktiska Handels-Institut, Stockholm. A day school founded by the merchants, with two divisions, preparatory and bureau. The course lasts one year, the classes being held from 8.30 a.m. to 3 p.m.

Preparatory subjects—Swedish, English, German, French, arithmetic, geography, calligraphy. Bureau division—Accountancy, commercial correspondence, languages as in preparatory, commercial arithmetic, geography, study of merchandise, political economy, calligraphy. For admission to the preparatory class pupils must have followed the five classes of a primary school; for admission to the "bureau" he must pass an examination.

Göteborgs Handels-Institut. Founded by the municipality and the merchants, and subsidised. It has this peculiarity, that both sexes are admitted and taught together. The course is one of three years. For admission to 1st year pupil must be 16 and have a general knowledge of German, French, English, history, geography, arithmetic and algebra.

Commercial institute at Gothenburg.	Class I. (1st year.)	Class II. (2nd year.)	Class III. (3rd year.)
Swedish	2	1	1
German	5	4	3
French	8	8	5
English	5	5	4
History	1	1	1
Geography	1	1	2
Commercial law	—	—	2
General political economy	—	—	2
National economy	—	—	
Science of commerce, accountancy and office work	—	3	7
Arithmetic	3	5	—
Algebra	2	2	1
Physics	1	1	—
Chemistry	2	—	—
Study of merchandise	—	2	3
Calligraphy	2	—	1
Stenography	1	—	—
Number of hours in the week	33	33	32
Spanish (optional)	—	—	2

SWITZERLAND.

The Federal Government having declared primary instruction to be obligatory and free, there exist in every canton public schools under the direction of the civil authority, and frequented by children of all classes of society from the age of 6 to that of 11 or 12. The secondary schools (*écoles réales*) are very numerous, and their organisation differs greatly, according to the political and economic tendencies of the different cantons. They are frequented by the children of the middle class who wish to acquire knowledge indispensable to industrial and commercial careers. In general they are free, being maintained by the towns and cantonal administrations. The children enter between the ages of 12 and 14, and the studies cover a period of from two to six years. During the first two or three years the instruction is general or preparatory, and comprises religion, modern languages (French, English, German, Italian), history, geography, accountancy, algebra, geometry, commercial reckoning, calligraphy, physics, natural history, drawing (linear and model), and gymnastics. Those wishing to complete their studies, and of an age to choose a career, enter the industrial or the commercial divisions.

The industrial or technical division has a course of three years, whilst the commercial has one of two years.

The commercial students, together with the industrial students, take the following classes: history, chemistry, natural history and gymnastics, each two hours in the week; German, Italian and English, each three hours in the week; and French, four hours in the week. In addition they follow special classes upon commercial sciences, commercial reckoning, accountancy and bureau, each two hours in the week; and French commercial correspondence, one hour in the week.

In certain gymnasiums (classical schools) is to be found a commercial section, which constitutes a sort of advanced study of the commercial sciences, accountancy, merchandise, political economy, commercial geography, &c. The students are also exercised in office operations, commercial correspondence, &c. The number of those who follow these supplementary courses is, however, very small; for the *écoles industrielles*, which are essentially practical and numerous, provide a programme which prepares the students in a course of a few years for industrial and commercial careers, and it is not surprising that most of the students consider a further two or three years' course of study

superfluous. As a type of this kind may be taken the *Ecole Industrielle de Lausanne*, in which the following commercial subjects are taught—

Lower division.

		III. Class. Ages 12 and 13.	II. Class. Ages 13 and 14.	I. Class. Ages 14 and 15.
Accountancy	...	1 hour in the week.	1 hour in the week.	2 hours in the week.
Calligraphy	...	2 hours	2 hours	2

Higher division.

		1st year. Ages 15 and 16.	2nd year. Ages 16 and 17.
Geography	...	3 hours in the week.	3 hours in the week.
Accountancy	...	5	5
Knowledge of merchandise	...	2	2
Political economy	...	2	2
		for six months.	
Legislation	...	—	2
			for six months.

In 1885 there were 257 students.

Ecole de Commerce de Neuchatel.

A school of commerce (day school) was founded in 1883 by the town of Neuchatel. The course is one of three years, preceded by a preparatory course of three months. The school possesses a library and museum, and also a laboratory for microscopic and chemical work, where students in the two higher classes can work four hours in the week. In addition to the obligatory courses, students must choose a sufficient number of the optional ones to make up the hours fixed for each class. Only in the third year are students allowed, so far as space permits, to attend such of the courses as they may choose, on proof of knowledge sufficient to profit by them. For admission to the preparatory course, pupils must be 13 years of age and either have followed courses analagous to those of secondary schools or pass an examination.

The minimum number of hours in this course is 30. Pupils are admitted to the first year's course, who are promoted from preparatory or from higher class of a secondary, cantonal, or Latin school, or who have passed an examination on preparatory subjects. Pupils are admitted to the second year who are promoted from preceding classes or who have passed an examination on the subjects of that class. The minimum number of hours in the second year is 32 in the week. The minimum number of hours in the third year is 30 in the week.

The following is a time-table of both obligatory and optional subjects, the latter being marked thus: *—

School of Commerce at Neuchatel.	1st year.	2nd year.	3rd year.
Bureau—Practical commerce ...	5	6	6
Theoretical commerce ...	5	3	3
Algebra ...	2*	—	—
Mental reckoning ...	1	—	—
Commercial legislation... ..	2	3	3
Political economy ...	—	2	2
Commercial geography ...	2*	2	2
Merchandise ...	1*	2	2
Chemistry ...	2*	1	—
Study of adulteration, microscopic and laboratory work	—	4*	4*
Physics ...	—	2*	2*
History of commerce ...	—	1*	2*
French language and literature—			
Course I. ...	6	4	—
" II. ...	6	—	—
" III. ...	5	—	—
" IV. ...	5	—	—
" V. ...	4	3	2
German ...	4*	4*	4*
English—			
Course I. ...	3*	4*	—
" II. ...	3*	—	—
" III. ...	3*	—	—
" IV. ...	3*	3*	4*
Italian—			
Lower I. ...	3*	4*	—
Middle II. ...	3*	—	—
Advanced III. ...	3*	3*	4*
Spanish ...	3*	3*	4*
Russian ...	3*	3*	4*
Calligraphy ...	2	—	—
Stenography ...	2*	2*	2*
Drawing (artistic or mathematical) ...	2*	2*	—
Gymnastics ...	1*	1*	—
Lectures delivered by students ...	—	1	1

* In the case of French students, German is compulsory together with one other foreign language. This rule applies to all three years.

For students who speak the French language, German and another language is obligatory. For those wishing to enter upon the second year's course, commercial geography, chemistry, and algebra are obligatory. Students in the second and third years are required to deliver lectures both in French and in each of the foreign languages that they are studying. One hour in the week in the language course is devoted specially to preparation for the lectures.

Ecole Supérieure de Commerce de Genève.

This is a day school directed by a commission under the control of the administrative council; it has a preparatory course of one year for those whose education is insufficient to follow first year's course, and two years of advanced studies for those desiring a deeper knowledge of all that concerns commercial science.

There are examinations for entrance to the preparatory course (unless candidates have a certificate from the 3rd class of a college, or the second year of a technical school).

Students are admitted, so far as space permits, to attend any of the courses they may choose, on proof being shown that they have knowledge sufficient to profit by them.

Time Table.

Higher School of Commerce at Geneva.	Prepara- tory year.	1st year.	2nd year.
French, compilation, commercial correspon- dence	4	3	3
German	4	4	4
English, Italian or Spanish	4	4	4
Calligraphy	3	2	—
Drawing	2	—	—
Book-keeping, accountancy	3	—	—
Commercial arithmetic, algebra, mathematics, mental reckoning	5	3	3
Commercial and industrial geography	2	2	2
History, specially in relation to commerce and industry	2	2	—
Physics	2	—	—
Chemistry	2	—	—
Civil law	—	2	—
Commercial and customs legislation, political economy, insurance, tariffs	—	3	4
Study of commercial products	—	3	3
Commercial bureau, visits to works	—	6	8
Lectures by students	—	—	3
Number of hours in the week ...	33	34	34

By a Federal Decree of 1891, subsidies were granted by the Federal Government to commercial schools on the following conditions—School course must be for three years; pupils must be of 15 years of age; subsidies to be only for actual expense of teaching; subsidies not to exceed the moiety of the local contributions; programme of studies and examinations and expenses to be submitted to the Federal Department of Commerce; schools to be open to inspection; prizes to be awarded for the continuance of studies at cantonal schools at Swiss universities or in other countries.

Attention might be drawn to the commercial societies which have existed since 1863 with head quarters at Zurich. The local bodies, of which there are 43, with 5,000 members, examine and grant diplomas to apprentices and clerks. (See report of H.M. Consul at Berne, for the year 1896, No. 1,925.)

DENMARK.

(Etude sur les Ecoles de Commerce, by MM. Ed. Jourdan and S. Dumont. 1886.)

There is an academy of commerce (day school) at Copenhagen called *Grüners Handelsakademi*. There are three courses of six months each, but a pupil can complete his studies in one year.

Grüner's Commercial Academy at Copenhagen.	Class I. (6 months.)	Class II. (6 months.)	Class III. (6 months.)
Book-keeping	2	2	4
Commercial correspondence	—	—	2
Commercial arithmetic... ..	7	6	5
Science of commerce	3	3	3
Commercial and maritime law	—	—	3
Commercial geography	3	2	—
History of commerce	2	2	2
Statistics... ..	—	3	—
Political economy	—	—	3
Danish	4	3	—
German	6	5	5
English	6	5	5
Calligraphy	3	3	3
Number of hours in the week... ..	36	34	34
French (optional)	2	2	—

UNITED STATES.

(L'Enseignement Commerciale et les Ecoles de Commerce, par M. Léautey.)

Each state has its Board of Education, which is composed of delegates sent up by the different districts (one for each) for a term not exceeding three years, who appoint a superintendent to visit the schools at least once a year.

The *public schools* or *common schools*, which are free, provide instruction from the age of 5 to the age of 18, and thus cover the field both of elementary and of secondary education. These schools contain the following grades—primary schools, grammar schools and high schools; the latter are divided into “English high schools,” where mathematics, science and foreign languages are studied, and “Latin high schools,” which give a classical education in preparation for the University.

Existing alongside of the above and frequented by those who have never been to a public school, or have only passed through the elementary stages, are the academies, some incorporated with State schools, in which case they are subsidised, others independent, but all subject to the visits of the inspector, called “truant officer.” These are open to both sexes, the girls’ teaching being more advanced, intermediate between the higher schools and the colleges.

A very extensive programme is provided from which the student may select the courses which he intends to follow. In addition to the subjects mentioned in the public schools curriculum may be mentioned book-keeping and political economy.

From the above-mentioned schools, those destined for the liberal professions go to the States colleges, Universities, or special technical schools; those proposing to enter business, proceed to commercial and business colleges, and, at the age of 18 or 19, enter upon a special commercial education.

Commercial colleges—These vary considerably as to their organisation, duration of course and programme of studies. In some, the students are taught the following subjects—English literature, book-keeping, French and German, accountancy, commercial reckoning (including weights and measures, monies, banking and exchange calculations), commercial correspondence, commercial jurisprudence, law in its relation to international commerce, railway and navigation tariffs, industrial and commercial geography, life and accident insurances, commercial technology, drawing, political economy, and (concurrently with this commercial instruction) mathematics, survey of plans, history, constitutional law, physical geography, calligraphy, stenography, telegraphy, natural and physical sciences.

Such is the education which can be obtained in the course of five years at the St. Louis University, or in the course of three years at the Kentucky Military Institute, or the University Tulane at New Orleans.

Most of these colleges have, however, a more restricted programme, such as the following—Commercial correspondence, book-keeping (single and double entry), general accountancy operations, elementary exchange and banking, commercial reckoning, and calligraphy; completed by lectures on technology, political economy, and commercial law. Some supplement this with stenography and telegraphy.

Business colleges.—The essential difference between these and the commercial colleges is the practical character as opposed to the theoretical teaching in the latter. These schools are mostly day schools, the students varying in age from 18 to 21, and are open to both sexes except where males are excluded, as in Nelson’s Ladies’ Business College in Cincinnati. The length of the studies is generally short; they rarely exceed one year; sometimes they do not exceed six months divided into two terms. In many establishments of this kind the term lasts four months and the fees are payable in advance. Some adopt a penalty system, and the length of the studies is then unlimited.

The following are two very good examples of these colleges—

The Spencerian Business College at Washington has three classes—

Junior or preparatory course for those who have not received public instruction or whose instruction has been neglected in the public schools.

The senior course.

The actual business practice course.

The following account gives an outline of the work of the last two courses.

The *senior business course* embraces the English language, business arithmetic, practical penmanship, book-keeping by single and double entry, adapted to every variety of business; business practice requiring the making out and exchanging of all kinds of business papers, paying and receiving cash, keeping the accounts and writing the letters, vocal and physical training, lectures on political economy, commercial geography, commercial law and business ethics. Students prepared by their knowledge of the common English branches to enter the senior department may complete the business course in from six to ten months.

The student, after passing through the stages of his preparatory course, locates and establishes himself in *actual business practice* in the college. He invests capital, makes purchases for cash and on time deposits in the college bank, gives and receives notes, cheques, drafts, receipts, due bills, orders, &c., writes and receives business letters, pays rent, insurance and taxes, and keeps his books by double entry in accordance with methods employed by the leading business houses. As merchant and banker the student learns practically the laws of supply and demand affecting prices, the customs of business to which he must conform, the laws of co-partnership and commercial papers, the relation of principal and agent, &c.

This programme is the one adopted in most of the business colleges; the minimum duration is 24 weeks, and maximum 48. The maximum duration of the classes is 36 to 38 hours in the week, and the minimum 27, leaving in this last case leisure to the student for gymnastics and music or drawing.

At San Francisco the town, in 1884, created upon the model of this college a public (free) commercial school.

National Eastman Business College at Poughkeepsie.—This college, one of the largest, insists specially upon the practical character of its teaching. It has three divisions, the preparatory, the junior practical, and the senior practical. There are no examinations at commencement. No particular

qualifications are required on entering. An ordinary knowledge of the common English branches is desirable, but those who are deficient will receive instruction in the preparatory division.

(1.) For the *preparatory course* three or four months suffice, but for the senior practical a year or two would be requisite. The preparatory subjects are—business arithmetic, practical grammar, commercial writing, commercial correspondence, book-keeping. The student is first taken through the business of a house without, and then one with, a sufficient number of students working with him to represent the different branches, and each subject is thoroughly analyzed and explained.

(2.) In the *junior practical division*, a regular business is carried on on the model of the London Corn Exchange, and the correspondence conducted by means of the Post Office (a special service established on the model of the U.S. postal administration). He then passes on to a higher stage, where he is operating with two or more correspondents for wholesale or commission. As he advances in his practical studies, he receives more advanced instruction in practical arithmetic. The merchandise serving for the operations consists of samples of cloth, &c., with a ticket indicating the length intended to be represented. The transactions are based upon the quotations each day of the New York Exchange.

(3.) The *senior practical division* comprises postal service, railways and transport, paper exchange, advertising, insurance, the department for business on a large scale, with its wholesale and import branches, where are to be found samples of all kinds of articles; and lastly, the general banking business, which is carried on for the accommodation of the students. Into this bank, which serves for the study of these operations, are paid in the cheques, orders or deposits that the parents or correspondents of the students confide to them. An account is opened in the name of the student, who receives non-negotiable orders, which can only be used in houses selected, and which these houses have to cash within three days where amount due is not equal to the order, a fact which appears by an endorsement on the back. As an encouragement, interest is given on money saved, and recompenses for the best employment of funds placed at the students' disposal.

The student passes consecutively from one section to the other after examination. After completing the junior practical course, a medal of merit is awarded, and after the senior practical course, the diploma of Master of Accounts.

During the whole time the student has the advantage of lectures on the following subjects—elements of success in business, advertising, correspondence, commercial geography, banking organisation and administration, industry and finance, political economy, commerce and navigation, civil and commercial code, different kinds of business. There are also courses for calligraphy and telegraphy, for each of which a special diploma consisting of a medal may be obtained.

The best of the business colleges require for their professors, in addition to a teaching diploma, several years' experience in some of the large administrative or business houses.

[NOTE.—According to M. Léautey's book, already referred to, there were, in 1884, 165 business colleges, of which three were annexes of scientific schools and five for forming commercial teachers, the rest being purely commercial; and 104 commercial colleges, of which 45 were public schools or annexes of other establishments, and 55 specially for commercial teaching. There were 11 normal schools for commercial studies, of which seven were annexed to ordinary normal schools.]

As a rule the American business college insists upon the students taking up a complete course of study as mapped out in its prospectus. The commercial course of study comprises—book-keeping (single and double entry), commercial arithmetic, penmanship, commercial law, business correspondence, business forms and methods, banking, insurance, commission, real estate, transportation, brokerage, wholesale, retail, importing and jobbing. There is usually a separate course for shorthand and type-writing, which includes grammar, spelling, dictation and practice in office routine; and another course called the "English course," for those students whose elementary knowledge is not sufficiently sound to warrant their entry in the higher departments. This course comprises arithmetic, penmanship, English grammar, reading, spelling, United States history, geography and letter writing.

Mr. Bernard de Bear, in a paper read at the International Congress on Technical Education held at the Society of Arts, in 1897, made the following remarks on American business colleges—

"The great feature of these colleges, however, is in the actual business practice. After having completed a certain amount of theoretical work, the student is advanced to the counting-house department, which is a realistic representation of a business house. Indeed in the larger institutions one would find an entire floor of the college building fitted up with, here a counting-house, there a bank, with its different divisions, and in other parts of the hall, offices representing firms of various descriptions. The student then actually performs in turn the duties of salesman, shipping clerk, cashier, receiving clerk, bill clerk, stenographer, book-keeper, &c. In some places he carries on business with other cities by correspondence with students in similar colleges in, say, New York, Boston, Philadelphia and Chicago. He orders or ships goods, draws drafts, makes and receives remittances, and in fact performs all the duties of a man of business. At the time of my visiting a college in Philadelphia there was actually a 'public auction' going on, the instructor being mounted on a rostrum, and the students in various parts of the room bidding against each other, paying with dummy cheques, keeping practical account of the business and showing results. In another establishment in the same city I noted that from the first day of entry a student was set up in business, a cash capital was given and deposit slip made out. He went to the bank (an actuality) from time to time, presented his money and deposit slip, and went through the regular banking routine. At a subsequent period he occupied a position in the bank, either as receiving cashier or paying clerk.

"In the *Gem City Business College*, in the town of Quincy (Illinois), I saw a most elaborate and perfect system of practical business training. An immense hall was fitted up with four banks, each bearing its title over the front representing the four sections of the country. There were, in addition, two wholesale houses, two commission houses, one railway express and freight company, one insurance and land office, and so on. Every description of document used in a house of business is brought into use in this department. There were also clearing houses, and, finally, an actual bank in the office of the college, where the actual deposits of students were received, and also occasionally of non-members of the school. In most of the colleges there was exhibited the market report for the day, just as it was received from the Board of Trade Department of the State."

Appendix IV.

Select Bibliography of Works relating to Commercial Education.

The following list has been kindly supplied by Mr. M. E. Sadler, of the Education Department, Director of Special Inquiries and Reports. All the books and publications mentioned in the list may be seen at the Education Department Library, St. Stephen's House, Cannon-row, Whitehall, S.W.

- (1.) *L'Enseignement commercial et les Ecoles de Commerce en France et dans le monde entier*; par Eugène Léauté. Paris: Librairie Comptable et Administrative, 2, Cité Rougemont. No date. Large 8vo, IV., pp. 774. Indispensable. The best recent book on the subject.
- (2.) *Kaufmännisches Fortbildungs-Schulwesen. II. Der gegenwärtige Stand*, von Dr. Stegemann. (Braunschweig: A. Limbach. 1896. Large 8vo, pp. 436.) Useful, especially for Germany.
- (3.) *Education of business men in Europe*. A report to the American Bankers' Association. By Dr. Edmund J. James. (New York: American Bankers' Association. 1893. 8vo, pp. 232.) Well written and thoughtful. Already, in points of detail, a little out of date.
- (4.) *Journal of the Society of Arts*. July 30th and August 6th, 1897. (London: George Bell and Sons, York-street, Covent-garden.) Papers and discussions on Commercial Education at the International Congress on Technical Education, London, 1897. Valuable: papers by MM. Jacques Siegfried and L. Suttle, and Messrs. Sidney Webb, E. E. Whitfield, S. Latham, H. W. Eve, R. Wormell, Bernard de Bear, T. A. Organ, and W. A. S. Hewins.
- (5.) *Institut Supérieur de Commerce d'Anvers. Dispositions réglementaires et Programmes des Cours. Programmes détaillés des matières de l'examen d'admission aux cours de la première année* (flysheets).
- (6.) *Commercial Education in Belgium*: a paper read before the foreign and colonial section of the Society of Arts, London, May 21st, 1895, by William Layton, professor at the Institut Supérieur de Commerce at Antwerp. (Reprinted from the "Journal of the Society of Arts," June, 1895.) (Antwerp, printed by J. Boucherij, Rue Houblonnière 30, 8vo, pp. 16.) A clear and interesting account of the work of the Institute.
- (7.) *Cercle des Anciens Etudiants de l'Institut Supérieur de Commerce d'Anvers. Sa Fondation et son Développement jusqu'en 1894*. (Antwerp: V^{ve}. Jos. Theunis, Rue du Lombard 28, 1894, pp. 32.)
- (8.) (a) *Règlements de l'Ecole des Hautes Etudes Commerciales*, Paris. (Paris: Nony et Cie. 17, Rue des Ecoles, pp. 40.)
 (b) *Programme des conditions d'admission à l'Ecole des Hautes Etudes Commerciales*. (Paris: Nony et Cie. 17, Rue des Ecoles, pp. 36.)
 (c) *Programmes officiels des cours des Hautes Etudes Commerciales*. (Paris: Nony et Cie. 17, Rue des Ecoles, pp. 42.)
 (d) *Programme des conditions d'admission à l'Ecole Supérieure de Commerce de Paris*. (Paris: Imprimerie Chaix, Rue Bergère 20, pp. 10.)
 (e) *Programmes officiels et détaillés des Cours de l'Ecole Supérieure de Commerce de Paris*. (Paris: Imprimerie Chaix, Rue Bergère 20, pp. 97.)
 (f) *Prospectus et Programmes de l'Enseignement de l'Ecole Commerciale*, Paris. (Paris: Imprimerie Chaix, Rue Bergère 20, pp. 10.)
- (9.) *Commercial Instruction*, organized by the Paris Chamber of Commerce (viz., Commercial School, Superior Commercial School, Ecole des Hautes Etudes Commerciales. Free Commercial Classes for women, girls, and men). (Paris, Imprimerie Chaix, Rue Bergère 20, large 8vo, pp. 193). A useful account, prepared for the Chicago World's Fair, 1893, of the provision made by the Paris Chamber of Commerce for various grades of Commercial Education.
- (10.) *Programme des conditions d'admission à l'Institut Commercial de Paris*. (Paris: Nony et Cie, Rue des Ecoles 17.) pp. 34.
- (11.) *Programme des Cours à l'Ecole Libre des Sciences Politiques*, Paris. (Paris: Librairie Cotillon, Rue Soufflot 24.) pp. 107.
- (12.) *Ecoles Supérieures de Commerce reconnues par l'Etat. Règlements et Documents*. (Bureau de l'Enseignement Commercial du Ministère du Commerce, de l'Industrie, des Postes et des Télégraphes.) Paris: Imprimerie Nationale, 1891.
 (a) *Premier Fascicule. Cours Préparatoires—Concours d'Entrée. Régime des Cours Normaux*. (pp. 71.)
 (b) *Deuxième Fascicule. Programmes détaillés des Cours Normaux*. (pp. 112.)
- (13.) (a) *Programmes détaillés des Cours Normaux de l'Ecole Supérieure de Commerce du Havre*. (pp. 36.)
 (b) *Programme des conditions d'admission à l'Ecole Supérieure de Commerce du Havre*. (pp. 26.)
 (Both published by Nony et Cie., Rue des Ecoles 17, Paris.)
- (14.) *Verordnung des Königlich Ministeriums des Innern zu Dresden die Begründung einer Handelshochschule betreffend*; vom 14 Januar 1898.
- (15.) *Zur Kaufmännischen Fortbildungsschulfrage in Hamburg*, issued by the Verein für Handlungs Commis von 1858. Hamburg. Kl. Bäckerstrasse 32. (Hamburg 1896. Druck von W. Hohlweg). Also Reports of the Handelsschule of the above Society. 1893-7.
- (16.) *Industrial Education*, by Sir P. Magnus. (London: Kegan Paul, 1888. pp. 271.)
- (17.) *Report on Commercial Education to the Sheffield Chamber of Commerce*, 1891, by J. J. Findlay. (Printed in Number (3) above, pp. 213, seq.)
- (18.) *Supplement to Chamber of Commerce Journal*, September, 1897. (London, Gilbert and Rivington, St. John's House, Clerkenwell.) Report on discussion on Government Aid to Commercial Education.

(19.) (a) Scheme and Syllabus for Instruction and Examinations in Commercial Subjects and Foreign Languages, issued by the Technical Instruction Committee of the County Council of the West Riding of Yorkshire. (County Offices, Wakefield.)

(b) Mr. Graham's Report to the Technical Instruction Committee of the West Riding County Council on the Holiday Courses at Caen and on the Commercial Schools in Paris, Rouen, and Bordeaux, 1896. pp. 10. (County Offices, Wakefield.)

(20.) The *London Technical Education Gazette* (King, 9, Bridge-street, Westminster), May, 1898, for report of Antwerp Congress on Commercial Education.

(21.) Congrès International de l'Enseignement Commercial tenu à Anvers, les 14, 15, et 16 Avril 1898. Rapports et Discussions. (Antwerp, Theunis, Rue du Lombard 28.)

(22.) Report of the Conference on Commercial Education held at the Guildhall, London, under the auspices of London Chamber of Commerce, July 8, 1898. (Waterlow and Son, London-wall, E.C.)

(23.) Les Ecoles de Commerce et l'Enseignement complémentaire commercial en Suisse. (Berne, Staempfli et Cie., 1896.)

(24.) L'Industrie, l'Enseignement professionnel et commercial en Hongrie, par Joseph Szterényi. (Budapest, Société d'Imprimerie, par action de Pest, 1897.)

(25.) Verhandlungen über das Kaufmännische Unterrichtswesen in Preussen zu Berlin am 31 Januar und 1 Februar 1898. (Berlin 1898. Ernst Siegfried, Mittler und Sohn, Kochstrasse, 68-71.)

(26.) Special Reports on Educational Subjects, Vols. I., II. and III. (Eyre and Spottiswoode, East Harding-street, Fleet-street, E.C.; or John Menzies and Co., 12, Hanover-street, Edinburgh, and 90, West Nile-street, Glasgow; or Hodges, Figgis and Co., Limited, 104, Grafton-street, Dublin.) The following articles will be found specially useful in relation to commercial education—

Volume I.—

Article 12. The French system of higher primary schools. By Mr. R. L. Morant, assistant director of special inquiries and reports.

Article 13. The Realschulen in Berlin and their bearing on modern Secondary and Commercial Education.

By Mr. M. E. Sadler, director of special inquiries and reports.

Article 14.—The Ober-Realschulen of Prussia, with special reference to the Ober-Real-schule at Charlottenburg. By the same author.

Article 16.—The continuation schools of Saxony. By Mr. F. H. Dale, of the Education Department.

Volume II.—

Article 2.—The London Polytechnic Institutes, with illustrations. By Mr. Sidney Webb, Member and formerly Chairman of the Technical Education Board of the London County Council.

Article 3.—The London School of Economics and Political Science. By Mr. W. A. S. Hewins, Director of the School, and Tooke Professor of Economic Science and Statistics at King's College, London.

Article 17.—The Study of Education. By Mr. J. J. Findlay, Headmaster of the Cardiff Intermediate School for Boys, and formerly Principal of the College of Preceptors' Training Department for Teachers in Secondary Schools.

Article 18.—The training of secondary teachers and educational ideals. By Mr. F. J. R. Hendy, headmaster of Carlisle grammar school.

Article 26.—The teaching of modern languages in Belgium and Holland. By Miss J. D. Montgomery, hon. sec. of the Technical and University Extension College, Exeter.

Volume III.—

Article 2.—Problems in Prussian secondary education for boys, with special reference to similar questions in England. By Mr. M. E. Sadler, director of special inquiries and reports.

Article 3.—“The curricula and programmes of work for higher schools in Prussia.” Translated by Mr. W. G. Lipscomb, assistant-master in University College School, London, and hon. sec. of the Modern Language Association.

Article 4.—The higher schools of the Grand Duchy of Baden; their development and organisation. By Mr. H. E. D. Hammond, assistant-master in the Edinburgh Academy.

Article 7.—The teaching of modern languages in Frankfurt am Main and district, with some account of the Frankfurter Lehrplane of 1892. By Mr. Fabian Ware, assistant-master in Bradford Grammar School.

Article 8.—The teaching of modern languages in Germany. By Miss Mary Brebner, travelling scholar of the Gilchrist Trust.

Article 9.—The teaching of foreign languages. By Professor Dr. Emil Hausknecht, Director of the 12th Realschule, Berlin (translated by Mr. Harold W. Atkinson, assistant master at Rossall School.)

Article 10.—The teacher of modern languages in Prussian secondary schools for boys. His education and professional training. By Mr. Fabian Ware, assistant-master in Bradford Grammar School.

Article 11.—Higher commercial education in Antwerp, Leipzig, Paris, and Havre. By Mr. M. E. Sadler, director of special inquiries and reports.

Article 13.—The secondary schools of Sweden. By Dr. Otto Gallander, of Hudiksvall.

APPENDIX V.

Information supplied by headmasters and principals of public educational institutions on the subject of the existing provision for commercial education in London.

The following letters have been selected as typical of the replies received in answer to a circular letter issued by the Special Sub-Committee.

A. Replies from the Headmasters of Public Secondary Schools.

(1.) *Reply from Mr. H. W. Eve, formerly Headmaster of University College School.*

We do not do a great deal in teaching commercial subjects. We have classes for—

- (1.) Book-keeping.
- (2.) French correspondence.
- (3.) Political economy and commercial history.
- (4.) Commercial geography.

These are so arranged that a boy can take them with probably six of the following—

- (1.) French.
- (2.) German.
- (3.) Arithmetic.
- (4.) Spanish.
- (5.) French conversation.
- (6.) Mathematics.
- (7.) English.
- (8.) Mechanics or chemistry.

Other combinations instead of Latin and omitting some of the above are possible.

Shorthand is an extra after school hours at a small fee (7s. a term).

I do not feel at all certain about commercial education. Our programme is very elastic and admits a good deal of variety. A sharpish boy of 14 or 15 intending to enter an office between 16 and 17 would probably have made distinct progress in Latin, French, German, mathematics and arithmetic, besides his English subjects. I then let him drop Latin, give rather more time to modern languages, including, if he will take it, a little Spanish and put him to commercial geography and political economy instead of ordinary history and geography, in which he may be supposed fairly proficient. He will almost certainly want to take book-keeping, which is probably good for him, as giving habits of neatness. But a good many of these boys are not very sharp, and for them I do not crowd in so many subjects.

I think the Chamber of Commerce course, in the framing of which I had a hand, a very fair one, but it has too many "obligatories" to suit the fads of "educationalists."

On the whole it seems to me that any good education, provided it includes good arithmetic and a thorough grounding in two modern languages, is the best preparation.

H. W. EVE.

(2.) *Reply from Mr. R. E. H. Goffin, Headmaster of United Westminster Schools.*

We have representatives in almost every bank in London. Mr. Frank Steele, whose essays have repeatedly secured the prizes of the Bankers' Institute, and whose articles in that institute's journal early this year on Amalgamation secured his promotion from the London and County to Parr's Bank, was one of our boys.

For banks, railways, insurance companies, actuaries, accountants, &c., and even for librarians and municipal officers (and we have excellent fellows in all such, including your own London County Council) we invariably find that a good sound, all-round training is of infinitely greater advantage to boys than any pedantic attempts at specializing. The fairly balanced youth can always add the special subject.

Moreover, how many boys know for certain that they will enter any particular kind of office? Scarcely one in one hundred can secure an appointment for certain before his school days are ended. Scores of boys who fondly dream about the gentlemanly work of this or that office, where they hope to have nothing to do, ultimately find themselves on a Canadian farm, or wandering about from pillar to post, glad to accept anything that turns up. But a broadly planned training will assist even such as these to climb a little higher.

Were every boy quite certain of his future employment a year before leaving school, there might be some advantage in special work, though even then it would tend to make a one-sided man.

ROBERT E. H. GOFFIN.

(3.) *Reply from the Headmaster of Sir Walter St. John's School, Battersea.*

I beg to forward replies to your letters of enquiry respecting the provision made in this school for instruction in commercial education.

During the past 2½ years we have tried to make special provision for such teaching. The following facts will briefly indicate the lines on which we have tried to work—

1. All the boys in the school take *French*, and those who are intended for commercial pursuits have also instruction in *German*.

2. As soon as boys have reached the upper fifth form, we have given them the option of spending about one half of their time, either—

(a) At *strictly commercial work*, including shorthand, bookkeeping, typewriting and office routine, or

(b) At subjects required for those *Civil Service Examinations* which are open to boys of 16 and under, or

(c) At the subjects necessary for the *Cambridge Local* and similar examinations.

So that the commercial subjects might be well taught, we engaged visiting masters for shorthand, bookkeeping, typewriting and business routine.

But while our civil service class has been full, our commercial class has not prospered as we hoped. The visiting masters have not been successful as teachers, and this has perhaps been one element in our comparative failure in this direction. The number of boys applying for commercial work has not been large enough to justify us in paying visiting masters, and at the present time the lessons in shorthand, book-keeping, and typewriting are being given by members of the ordinary staff, who have specially qualified themselves in these subjects.

With reference to commercial education generally, I beg to make the following suggestions—

(1.) That commercial subjects shall have a place in the examination scheme issued by your Board both for junior and for intermediate scholarships.

(2.) That some scholarships should be awarded on the express condition that their holders give a large proportion of their time to commercial subjects rather than to physical and chemical science.

(3.) That special aid and encouragement be given by your Board to a number of selected secondary schools, on the understanding that the upper forms specially provide such a course of commercial training as may seem best adapted to the wants of boys leaving school, from 16 to 17 years of age.

WM. TAYLOR.

(4.) *Reply from the Director of Education, Regent-street Polytechnic.*

The Polytechnic Commercial Day School.

In the above-named school the pupils are specially educated with a view to their ultimately following a mercantile or professional career, and are carefully prepared for the various public examinations including the matriculation at the London University, the Cambridge and Oxford Locals, College of Preceptors, Society of Arts, Science and Art and Chamber of Commerce.

In the lower forms of the school the scholars receive instruction in the usual English subjects, together with Latin, French and drawing, and are thoroughly grounded before being promoted to a higher form. In form upper III. the study of German is commenced; whilst in form IV. in addition to this subject book-keeping, chemistry and shorthand are added, and are continued in the upper forms of the school. Form V. is divided into two sections.

The studies of the scholars who intend following a professional career are especially directed to Latin, Greek, French or German, mechanics, chemistry (theoretical and practical) and English, and the scholars are also prepared for the various professional examinations, and especially the matriculation of the London University. In form V. the pupils who intend pursuing a commercial career devote their time to the study of German and French, shorthand, book-keeping, mathematics, drawing, English, &c. In the upper VI. form the pupils are allowed to specialise in various subjects, particular attention being given to those subjects in which the pupil desires special tuition. More attention is devoted in this form (upper VI.) to the study of shorthand in order to qualify the student to take down letters from dictation; and great care is given to each pupil individually in order to enable him to transcribe accurately the matter dictated. They are also coached in commercial correspondence on the lines laid down in business houses. Typewriting is also made a speciality, and the students are instructed to take down work in shorthand and afterwards transcribe from their own notes. In both French and German the scholar receives instruction of a character which eventually enables him to correspond in these languages; and in addition to this special attention is given to conversation in both.

In book-keeping, English Grammar, French, German and shorthand a large number of the boys of the VI. form obtained certificates at the late Society of Arts examinations in these subjects.

ROBERT MITCHELL.

(5.) *Reply from the headmaster of the Whitechapel Foundation School.*

The amount of time we spend on technical commercial work is very small and is spent on the study of—

Commercial history	...	...	...	...	...	1 lesson
Commercial geography	...	...	...	...	...	1 „
Book-keeping	...	...	...	...	...	1 „

Till this school year (September, 1898—August, 1899) we have for some years past devoted considerable attention to the study of French and Spanish commercial correspondence; but I have come to the conclusion that we have thus wasted a lot of time; and we are now giving more time to French and Spanish composition and conversation—and not on specifically commercial subjects.

I enclose a copy of our last examiner's report.*

H. CARTER.

* The report enclosed in Mr. Carter's letter was a report by the Rev. T. W. Sharpe, C.B., which, after giving a very favourable account of the teaching throughout the school, concluded as follows—

“ The second point, and a more serious one, is the selection of the type of school that shall determine the course of study. As soon as secondary education issues from its present state of chaos, various types of schools will be needed which must have relation to the future

lives and occupation of the scholars. All such types must lie between the classical and public elementary schools, and may be either schools training for a commercial life or for a professional life, or technical or organised science schools. Your school, both from its traditions and its locality, would seem naturally to fall under the commercial type.

"It may be assumed that it is possible to give a liberal education by means of those subjects which are especially needed for a commercial training. Such subjects may be taught in a manner which may be called 'human,' and should be divested of commercial technicalities, which can be more readily taught in a short time in a place of business. Among such subjects are English literature, the growth of English institutions as one aspect of history, travels and discoveries in geography. Mathematics would include a direct and simple course of arithmetic, avoiding unnecessary academic processes, and a full course of geometry, including geometrical drawing, but involving less algebra than is generally taught at present."

B. Replies with regard to Evening Classes in Polytechnics.

At the same time as enquiries were made of secondary schools a circular letter was addressed to the principal institutions where evening classes in commercial subjects are provided. The following is a copy of the letter of enquiry which was sent—

9A, St. Martin's-place, W.C.,
October 20th, 1897.

Dear Sir,

A special sub-committee has recently been formed by the Technical Education Board to enquire into the facilities now existing in London for the provision of commercial education, other than the preparation for Civil Service and similar examinations, conducted in evening commercial schools. While the scope of the sub-committee's enquiries is not necessarily limited to any particular field, and the sub-committee will be glad to receive information and suggestions respecting any branch of commercial instruction, it is suggested that in the first instance it should consider more particularly the special instruction provided for bankers, railway officials, accountants and actuaries, municipal officers, shipping agents and their employees, salesmen and librarians.

I shall be much obliged if you will kindly let me know, for the information of the sub-committee, what instruction is provided in any of the above-named subjects in your institution, to what extent students take advantage of this instruction, and for what examinations, if any, they are presented. I shall also be glad to receive any suggestions which you can make with reference to the manner in which the Technical Education Board may improve the facilities for systematic commercial training in London, it being understood that the Board is not prepared at present to subsidise the ordinary evening classes in shorthand, English composition, elementary book-keeping, and the other subjects usually taught in evening commercial schools, which experience shows can, in most cases, be made entirely self-supporting.

I am, dear Sir,
Yours faithfully,
WM. GARNETT,
Secretary of the Board.

The object of the proviso in the last three or four lines of the letter was to prevent the communication being made the ground for application for aid from any elementary evening commercial class. In response to this enquiry the following replies were received—

(a.) *Reply from the Battersea Polytechnic.*

In reply to your circular letter of October 20th with reference to our work of providing education in commercial subjects I have pleasure in replying as follows—

The enclosed table will give you particulars of the entries for the current term in all our commercial subjects, and will serve as a good guide to our average attendance. These classes have always been well attended since the opening of the institute, and the numbers show a good increase.

In the book-keeping, shorthand, and typewriting classes practically the whole of the students are engaged in commercial work. In French and German probably quite half of the students are studying the subject for purposes of general education, and are not engaged in commerce. The entries for German have increased during the last year, but the classes have never been largely attended. The subjects of commercial geography and commercial arithmetic were added at the beginning of last session in the hope that they would meet a real need, but this has not proved to be the case, as the numbers for geography have never exceeded seven, the majority of whom are young students who really want general geography rather than commercial geography. The same remarks apply to the classes in commercial arithmetic.

The class in economics is conducted by a lecturer from the London University Extension Society, but I have already written you separately about this. You will see that the entry is very small, and is not therefore encouraging as showing the need for higher training of this character.

The students are encouraged to enter for the examinations of the Society of Arts and the Chamber of Commerce, and I give you in Table No. 2 the number of entries and passes in the different subjects for the past two years. It is only students of the advanced classes

who are qualified to enter, and it is found very difficult to get them to regard the examinations in the same way, for example, as science students do those of the Science and Art Department, so that only a small proportion of those in attendance can be persuaded to enter.

I am quite sure that my governors will be very glad to welcome any suggestions from your Board with reference to the provision of further facilities for commercial training, as there is no doubt this district provides a very large number of young men and women engaged in commercial work.

I may, perhaps, add that the entries for typewriting would be very much larger than they are if we possessed more machines, but the class is a somewhat expensive one to conduct; and as the number of our machines is limited to four, we are able to fill up our classes within the first week or two of the term, the result being that the students have often to be refused.

SIDNEY H. WELLS,
Principal.

Tables relating to Battersea Polytechnic.

TABLE NO. 1.

Number of class entries in commercial subjects for the term Sept. to Dec., 1897.

Subject.	Number of entries.
Book-keeping, elementary	37
„ intermediate	13
„ advanced	11
Commercial arithmetic	13
„ geography	5
Economics	6
English	29
French beginners	36
„ elementary	7
„ intermediate	22
„ advanced	24
„ conversational	25
German, elementary	20
„ advanced	14
Latin, beginners	11
„ matriculation	9
Political economy	4
Shorthand preparatory	54
„ elementary	10
„ intermediate	47
„ advanced	16
Typewriting	50
Total	463

TABLE NO. 2.

Number of entries and results of Society of Arts examination for the years 1895-6 and 1896-7.

Subject.	1895-6.					1896-7.				
	Entries.	Passes.				Entries.	Passes.			
		1st.	2nd.	3rd.	Total.		1st.	2nd.	3rd.	Total.
Book-keeping	26	5	8	13	26	21	1	15	5	21
Shorthand	4	...	1	3	4	8	...	...	3	3
Typewriting	4	...	...	...	...	2	...	1	1	2
French	14	...	2	3	5	10	...	1	5	6
German ... ..	...	...	...	...	...	...	...	...	...	...
English ... ..	...	...	...	...	...	1	...	1	...	1
	48	5	11	19	35	42	1	18	14	33

(b.) Reply from the Birkbeck Institution.

In reply to your letter of the 20th inst. asking for information as to commercial instruction, and more especially as regards bankers, railway officials, accountants and actuaries, municipal officers, shipping agents, salesmen and librarians, I beg to say that this institution has long provided instruction suitable for clerks, &c., in these occupations, and that in addition to commercial classes of a somewhat elementary kind in shorthand, book-keeping, &c., there are considerable classes in political economy, commercial geography, advanced arithmetic, mathematics, languages, and commercial correspondence, and in law (common law, bankruptcy, mercantile). The following was the attendance in these classes for the first term in the year 1896-7—

	Total.	Number doing advanced work or such as is contemplated in the application.
Political economy ...	86	86 (all)
Commercial geography ...	32	32 (all)
Law (mercantile, &c.) ...	29	29 (all)
*Mathematics... ..	248	...about 120
*Higher arithmetic ...	80	... „ 40
*Book-keeping	173	... „ 85
Languages	842	... „ 280

In the classes marked (*) it is impossible to say accurately what proportion is above the ordinary commercial stage, but one-half is probably a fair estimate. In languages (French German, Spanish and Italian), the students pass from one stage to another; and while the classes in commercial correspondence are not at any time very full, those attending the other classes are in many cases acquiring the language for business purposes, and it would be reasonable to estimate about one-third as doing advanced work of such a character.

The students sit for various examination, and each year successes have been obtained in these examinations, though very inadequate statistics are available respecting them, as it is not always possible to ascertain what examination students have in view. During the past year students have passed the following examinations—

University Extension Society (Political Economy).
 „ „ „ (Commercial Geography).

Institute of Bankers.
 Institute of Actuaries.
 Institute of Chartered Accountants.
 Chamber of Commerce.
 Society of Arts.
 Higher Civil Service appointments.
 London County Council appointments.

Commercial geography (which was revived only a year ago) has not yet succeeded in attracting a large number of students. My opinion is that its importance is not sufficiently understood. With that self-satisfaction which operates so injuriously upon our industries and commerce in the competition with other countries, most people think they know enough of such matters for their business, or they imagine that they learned such things at school. The same remark applies to economics (although this class has been developed during many years until it averages 80); the numbers attending ought to be increased enormously if men were conscious of their ignorance of the subject and its vital importance, but many think they can learn “all that” in business much better than from books and lectures. As a rule young men are induced to make a special study of a subject when they see some monetary advantage will arise from it. For many years I have had a considerable number of bank clerks at my economic lectures; they come mostly from the banks which recognise the examination of the Institute of Bankers by giving their clerks a bonus when they pass the examination, or which treat it as a step towards promotion. If the railway companies, etc., did something of the same kind probably their clerks would flock to lectures and pass examinations. We have a recent illustration:—The Post Office offers a prospect of advancement to telegraph clerks who pass an examination in telegraphy and telephony. This has caused a large accession to our classes in these subjects.

The best suggestion that I can offer to your Board is that it will do an excellent work if it can make these people understand their need for such specialised knowledge, and induce them to avail themselves of existing opportunities. We have excellent lectures on commercial geography in a class-room that will accommodate 60; at present there are only 17 students, though we have advertised the subject well. No doubt some steps might be taken for creating some grades of specialised day schools, such as were advocated at the conference at the Society of Arts, which would appeal to many classes, but, as yet neither have the efforts of the Chamber of Commerce been successful nor have the facilities for such knowledge as are afforded by this institution and the City of London College been accepted as fully as they ought to be by the public. The chief difficulty seems to be in creating a demand. If employers were to insist upon a special test, or to give promotion only upon some certificate of attainment in these branches, it would stimulate a demand; against this there is the danger of pushing the examination system to injurious lengths, and making the acquisition of knowledge a mere mercenary aim.

I would add that the commercial classes are not, as the last remark in your circular supposes, as a rule self-supporting on a scale sufficient to remunerate the teachers; they must either be subsidized, or the teachers are underpaid; the fees are usually low, and

cannot possibly meet the expenses of the class unless the attendance be exceptional, *e.g.*, 30 students in commercial geography at an average fee of 4s. yield £6; lantern for slides, gas, advertising, &c., absorb more than half of this. It seems to me the Board has taken a wise step in subsidizing such classes; in time their importance may be recognised, and the attendance may become such as to make them more nearly self-supporting, but there is little immediate prospect of this.

G. ARMITAGE SMITH.

(c) *Reply from the City of London College.*

Referring to your circular letter of the 20th inst., I beg to inform you that instruction in the commercial subjects mentioned below is provided here, in addition to elementary commercial subjects, such as English composition, elementary book-keeping, and shorthand.

Higher arithmetic...	These classes are largely attended by bank and insurance clerks, and many of the students present themselves for the examinations of the Institute of Bankers. Some also take the examinations of the London Chamber of Commerce and the Society of Arts.
Mercantile law	...	...
Advanced book-keeping	...	...
Political Economy	...	...
Mathematics	These classes are especially intended for those students who are preparing for the examination for accountants.
Law for accountants	...	...
Advanced book-keeping and commercial knowledge	...	...
Partnership and executorship accounts	...	...
Commercial geography	Attended largely by merchants, clerks and warehousemen, some of whom present themselves for the examinations of the Society of Arts and the London Chamber of Commerce.
Shorthand reporting	...	...
Commercial correspondence (English)	...	...
"	"	(French)	
"	"	(German)	
"	"	(Spanish)	

D. SAVAGE,
Secretary.

(d) *Reply from the Goldsmiths' Institute.*

In reply to your circular letter, I enclose copy of our time table for the current quarter, in which you will find detailed all the classes we have in our commercial section. *Bankers' clerks* sometimes join our classes for *languages* and *commercial geography*.

Railway Officials frequently join us for *French*, which on the S.E. line some find useful, owing to the nationality of the passengers; also for *book-keeping* and *handwriting*.

Accountant clerks join for *book-keeping* and *handwriting*.

I do not think we get any actuaries—not at least people who practise as such.

Junior municipal clerks occasionally join the same classes as the accountant clerks, adding shorthand and typewriting.

Candidates for these appointments occasionally come to us and go through our Civil Service class preparation.

Our Civil Service classes are somewhat elastic, and the teaching staff can suit the methods of preparation to the requirements of such candidates.

Shipping agents.—We get some clerks from shipping offices who study *book-keeping*, *shorthand* and *languages*, especially *Spanish*, I believe, and *commercial geography*.

Salesmen.—We get a considerable number of these, but they join so many classes and for such diverse subjects that it is impossible to classify their studies.

Librarians.—Few people actually employed in public libraries can get away in the evenings in order to join classes at institutes.

Most of those who are employed in public libraries begin work as boys at these places, and are promoted according as they become efficient. Good handwriting in a boy applicant is the chief thing looked for, I understand, when applying for such posts.

When more advanced in their work, it is of benefit to junior librarians to pass the examination of the Libraries' Association, and I have a boy in our library here preparing for this examination.

Suggestions.—I think there is room for some sort of a systematised examination in commercial subjects, other than that of the Chamber of Commerce, which is a very difficult one, and is rather out of the reach of the large majority of the class of people who attend the commercial classes at polytechnic institutes.

If the Technical Education Board were to organise an examination in book-keeping, shorthand, typewriting, commercial geography, commercial history, and one language, I think it would do good. What I mean is, a certificate given, not for each of these subjects, but for a satisfactory pass in all of them. This could be called the "Technical Education Board Junior Commercial Certificate," and might be made to meet a two years' course of systematic study in the commercial classes of polytechnic and similar institutes of London.

Those students who obtained the certificate might be eligible for a further or senior certificate to be awarded—

(a) On the result of an examination in two languages other than the language selected by the student for his junior examination.

(b) On the result of a paper on commercial training, embracing questions on general office routine, which one might reasonably expect a senior candidate, who had been employed in some office, to know something about.

(c) Some special subject offered by the student himself, of which three months' notice would have to be given.

NOTE.—By this means one might encourage a commercial student to go a little bit outside the details of purely commercial subjects and study a little chemistry or engineering.

What I have in my mind is the case of a clerk employed in some office connected with chemical, or engineering, or other industry. For instance, from a clerk employed in Pullar's dye works you might reasonably expect an intelligent interest in the chemistry of dyeing, although the clerk might have nothing to do actually with the dyeing itself. It would encourage an interest in the subject matter of his employer's industry.

Students who passed the junior commercial certificate examination might be divided into two classes of merit, 1st and 2nd, and the Technical Education Board might award scholarships to those who obtained a first-class, or a portion of them, *tenable at various Polytechnic Institutes, on condition that these scholarships were made use of for further study in subjects for the second or senior certificate examination* I have suggested.

For the senior certificate I would suggest that papers should be set to meet the amount of knowledge which students might reasonably be expected to have acquired in the course of a further two years' study.

Two points to which I attach special importance are the following—

(1.) As regards the junior examination, that a commercial student should not study isolated commercial subjects, but go through a sort of commercial course. Students frequently come to us who want to learn book-keeping, but not shorthand, because they are fearful of being turned into an ordinary shorthand clerk—shorthand drudge is, I believe, the term they generally use. Anything which tends to promote a systematic course of study amongst young clerks would be good. It is just the one thing they won't do for themselves. They rarely put down their names for a class unless they can see the direct monetary return at the end of it. In this way they differ from engineers and more purely technical students, who take up a number of subjects more or less "on spec," having full trust and confidence in their instructors' advice, *e.g.*, an intending engineer learns mathematics in addition to machine drawing and workshop practice, very much on faith sometimes, not because he himself is convinced that mathematics are going to be useful to him.

(2.) The second point I would urge, and it is the strongest point that I have to urge, is the desirability of making clerical students take an interest in something quite outside the technique of clerical work, *e.g.*, the case of Pullar's dye student I have quoted.

I do not think you can get, or even expect, the average junior commercial class student to see this distinctly.

After a man has been drudging in a city office for some years, as a rule all you can get him to see is that his chances of promotion and advancement are more than duplicated if he knows something about the subject-matter of his employer's industry.

Mere keeping accounts and shorthand, and even a knowledge of a language or two will not, in my opinion, shove a clerk on as much as an intelligent interest in the subject matter of his employer's industry.

I do not think that as a rule a clerk can get this information from his employer, because in the office where he works the average employer does not care for his clerk to know too much about the subject-matter of his business. There is a sort of nervous dread amongst employers that if a clerk were told this by them he would talk about it.

On the other hand when an employer discovers that his clerk has acquired for himself without any help from him some knowledge of the subject matter of the industry in which his principals are engaged, then this clerk's value is largely increased, and promotion certain.

It may seem a contradiction that an employer appreciates what he does not encourage, and what he would not encourage if asked, but at the same time it is in my experience true.

It is this particular faculty which the best German clerks usually exhibit and which the English clerks do not.

The great difficulty in systematising commercial education is of course, the wide application of the term "clerk." I find that any man or boy who can possibly contrive to describe himself as a clerk when he really is something else, will do so. Warehousemen and salesmen will do this if they possibly can. A salesman in a house of business not a hundred yards away from our institute described himself as a clerk; and when pressed I found that his excuse for doing so was that he made out customers' bills before calling to another officer of the establishment to "sign."

Whiteley's cash boys will always describe themselves as clerks, though the next step in their promotion is that of salesman.

Of course you know there is a stupid idea that anything in the shape of a clerk is a superior grade to people who assist in a shop, or do work with their hands.

We had a batch of salesmen who joined the institute here in the early days, and I had the curiosity to hunt up their class entry forms to see what they joined. The bulk of them, you will be surprised to hear, joined not commercial classes, but for playing the piano.

J. S. REDMAYNE,
Sec. G.C.T.R.I.

(e) *Reply from Regent-street Polytechnic.*

In reply to your communication of the 20th, I beg to state that the following courses of instruction are given at the Polytechnic in connection with commercial instruction—

Languages—					No. in attendance.
French	...	...	...	...	434
German	...	...	...	...	124
Italian	...	...	...	...	23
Hindustani	...	...	...	...	7
Commercial geography and history	...	...	...	...	9
Commercial arithmetic	...	...	...	...	73
English and writing	...	...	...	...	120
Book-keeping in its various stages	...	...	...	...	192
Shorthand and typewriting	...	...	...	...	408

We have no specially organised courses for the various classes of individuals you refer to, as we have left this section of the work to the Birkbeck Institute, whilst we retain the industrial technical courses.

There is no question but what a series of lectures and courses of instruction for salesmen in the various dry-goods stores in this district would be greatly appreciated. The need has also been realised for a special course of instruction for railway officials, and an effort was made to secure a suitable lecturer for a course during the ensuing winter, but up to the present we have not succeeded.

I am confident that my governing body would most willingly endeavour to carry out any suggestion your Board may make with regard to the formation of such classes, so far as the accommodation of our building allows of their so doing.

ROBERT MITCHELL.

(f) *Reply from the South-Western Polytechnic.*

In reply to the letter of the Sub-Committee of your Board on commercial education, dated October 20th, 1897, I would make the suggestions—

1. That a central Institute for *higher* Commercial Education should be founded, which should do for commercial education what the Central Technical College in Exhibition-road does for what is ordinarily understood by technical education.

2. That institutes for *intermediate* commercial education should be founded in about six different localities in London. These institutes should occupy the same position with respect to the Central Commercial Institute that Finsbury and the S.-W. Polytechnic Technical Day Colleges do with respect to the Central Technical College.

3. That a commercial section provided with a suitable head, but under my control, should be added to the sections of mechanical engineering, electrical engineering and technical chemistry, which at present constitute the technical day college of our institute. If, as suggested in another letter enclosed with this, your Board should assist in establishing a commercial form in connection with our *school* of science for boys and girls, there would be the means of giving a student a sound and progressive course of commercial training from the age of 12 to manhood. A boy could enter our school of science at the age of 12. From 12 to 14 he would go through the general course of instruction provided at present in the school, and from 14 to 15 would specialise in the commercial form. From 15 to 17 he would continue his specialisation in the commercial section of the college, and then pass on to the Central Commercial College, or if this could not be managed stay till another year in our own institute.

As regards finance there would be little difficulty, provided your Board would approve of our charging the same fees in the commercial section as we do in the other sections of our day college, namely £15 per annum, and which are reduced to £10 in the case of boys coming into the college from the school. I have gone carefully into the matter of expense, and consider that a subsidy of £350 per annum for the college, and of £150 per annum for the school would suffice. Nor do I think that the subsidy for the *college* would be required for more than two years.

The commercial form and section need not be confined to boys and men, but girls and women could be admitted. We have a large number of girls in our school of Science, and, as you are aware, a day college for women, the counterpart of the day college for men, is already in existence at our institute.

At present, I regret to say, there is no such instruction as your sub-committee are making enquiries about given at our institute.

Of course, *evening* classes in this intermediate and higher commercial instruction could be conducted at lower fees.

HERBERT TOMLINSON.

C. Public Institutions for Higher Education for which special Commercial Instruction is provided.

The following information is given with regard to public institutions for higher education at which special commercial instruction is provided—

(a) *King's College.*

The secretary of King's College writes as follows—

In reply to your letter of 20th ult., I beg to submit the following information as to the part taken by King's College in the provision of commercial education.

There are established in connection with King's College, day classes called the "Civil Service Day Classes," for the sake of distinguishing them from "King's College School" proper, which is a first-grade school. These classes take boys from the age of 10 years and upwards, and give a sound commercial education, while at the same time preparing boys for many Civil Service examinations.

The subjects include handwriting, orthography, arithmetic and mensuration, book-keeping, English composition, history, geography, copying manuscripts, precis writing, digesting statistical returns into summaries; the curriculum also comprises Euclid, algebra, Scripture, English grammar and literature, political economy, physical geography and French. Provision is also made for boys wishing to learn Latin, German, shorthand, inorganic chemistry, mechanics, geometrical drawing.

It will be seen that while the curriculum is widened to cover the special requirements of the Civil Service Commissioners, it is at the same time eminently adapted for supplying a thorough commercial education.

The excellence of the training is becoming known to various banks and firms. Applications are often made for students. The London and Midland Bank, in fact, always asks the college to nominate six or seven of the boys to compete in their examinations, held every few months, and nearly all so nominated receive appointments.

The instruction in book-keeping is especially complete, and of a very advanced character; and boys from the school enter the offices of chartered accountants, or are articulated.

The day classes were established some five years ago, and now contain 400 boys. The Devon and Norfolk County Councils allow their intermediate scholars to hold their scholarships in this school.

In the ordinary evening classes held by the college for many years, special classes were until lately held for preparing students for commercial life, and for the various examinations, as those of the Bankers' Institute, chartered accountants, solicitors' intermediate.

Owing, however, to the lack of any support in the shape of endowments or grants, many of the classes have had to be given up, though many are still carried on as will be seen from the prospectus for the current year. I would draw attention to the syllabus of commerce (p. 28) and political economy (p. 27). Modern language classes in French, German, Spanish and Italian are also held.

Finally, I would draw the special attention of the Committee to the series of lectures given to banking clerks every winter, known as the "Gilbart Banking Lectures." Owing to the eminent position of the lecturer, Mr. J. R. Paget, and to the very valuable lectures he delivers, these courses have been extraordinarily successful, so much so that accommodation cannot be found for the students at one time, and the lectures have to be repeated; the attendance each winter numbers 1,200.

These lectures, which were founded in 1872 with a small legacy left by the late Mr. J. W. Gilbart, were for many years carried on at a considerable pecuniary sacrifice by the college, and two years ago a special appeal had to be made to the bankers of London for assistance. This was liberally responded to and enabled the lectures to be carried on, but their continuance entails a fresh appeal each year. The enclosed copy of the appeal gives the main facts concerning these lectures, and it would be a source of gratification to the Council if the Technical Education Board could see their way to recognize the great value of the lectures by giving some pecuniary assistance. If the funds were found it might be possible perhaps to supplement the lectures by some class teaching such as that dwelt with in the class on "commerce" in the ordinary evening classes. It is found that the bank clerks cannot or will not afford the fees asked, without which the classes cannot be maintained.

In response to the invitation for suggestions for improving the facilities for systematic commercial teaching, I might venture to mention that—

1. The *day classes for commercial education in this college* should be recognised as being a suitable school in which the London County Council scholarships might be held, and that some grant should be made for adding to the teaching apparatus and improving the classroom accommodation.
2. That a grant should be made in support of the special courses of *Gilbart Lectures on Banking*.
3. That assistance should be given to the *evening classes in commercial subjects* on the same lines on which the grant of £1,500 is now made to the college for science teaching.

WALTER SMITH,
Secretary.

(b) *London School of Economics and Political Science.*

A comprehensive account of the work of the school, written by the director, Professor Hewins, appeared in the "Record of Technical and Secondary Education" for October, 1897. The following is a summary of Professor Hewins' article—

After pointing out how very few facilities exist in England for economic training compared with those provided on the Continent and in the United States, Prof. Hewins expresses his belief that one reason lies in the few openings that there are for students of economics and the little money that is devoted to the encouragement of economic teaching. The foundation of the School of Economics in 1895 was an attempt to remedy this state of affairs. The original objects of the school were the following—

- (1.) To provide public lectures, and classes connected with them, on a large number of subjects connected with economics, commerce, and political science.

- (2.) To provide classes giving a three years' course of study, concluding with a research course.
- (3.) To promote original research by means of scholarships or otherwise.
- (4.) To publish books containing the results of researches.
- (5.) To collect a library of books on economic and political history and theory.
- (9.) To organise an information department for the use of British students and foreigners.

All these objects, with the partial exception of the last, have been carried out.

(1.) Lectures are given on nearly all branches of economics and political science by 25 different lecturers, the lectures varying from a single lecture to courses of 20 lectures.

(2.) The special classes have been developed so successfully as to become the leading feature of the school. There are now special classes extending for two years in (a) economics, (b) statistics, (c) political science, consisting of an elementary course, an advanced course, and in the case of (a) and (c) a research course. Appropriate lectures are grouped round the different classes. A special class in palæography, extending over two years, has also been started.

(3.) Eight research studentships, varying from £100 a year for two years, to £25 for one year, have been awarded; 30 scholarships giving free tuition have also been awarded.

(4.) Three books, embodying the result of original researches, have been published, and three more are in preparation.

(5.) A unique library has been formed, consisting of 10,000 volumes.

(6.) Though no information department has been formally established, the school is largely used by students, and others seeking information.

The number of students in the first year was 300, and in the second 400. The school is therefore the largest centre of economic teaching in the United Kingdom. Professor Hewins proceeds to point out a few special features in the growth of the school.

(1.) It is remarkable that it has been the organised special classes rather than the lectures which have been the centre of attraction. Unlike the University Extension system, *the classes have fed the lectures and not the lectures the classes*. The classes are divided into (i.) Elementary classes, (ii.) Advanced classes, (iii.) Research work; and this system has been applied to the study of economics, of political science, of statistics, of palæography. Lectures without special classes are given on economical law, railway economics, and finance and taxation.

(2.) Though at present there is not a widespread feeling in the commercial world in favour of scientific commercial training, Professor Hewins feels that the development of such a feeling is only a question of time and organisation, and that in course of time an *indefinite expansion* in the demand for commercial training may confidently be looked for.

(3.) The greatest hindrance to the work of the school is the insufficient preparation of the students. For instance, many students who enter for the courses on statistics or on banking, are ignorant of how to perform elementary calculations. So strongly does Professor Hewins feel on this matter that he states the case as follows—

“The most serious difficulty that has to be dealt with in the organisation of commercial education is to be found in the unsatisfactory state of secondary education in England.”

The following is the present curriculum for the two years.

Higher Commercial Course—It must be noted that by “Higher Commercial Education” is meant “a system of higher education which stands in the same relation to the life and calling of the manufacturer, the merchant, and other men of business, as the medical schools of the Universities to that of the doctor—a system, that is, which provides a scientific training in the structure and organization of modern industry and commerce, and the general causes and criteria of prosperity, as they are illustrated or explained in the policy and the experience of the British Empire and foreign countries.”

FIRST YEAR. *Descriptive Economics.*

The object of this class will be to make students acquainted with the Structure and Organisation of Modern Industry and Commerce, as exhibited in the Cotton, Iron, and other great trades of this country. In addition to attendance at the ordinary meetings of the class, students will find it to their advantage to attend certain courses of lectures, *e.g.*, Banking and Currency, Railway Economics.

Chief Economic Terms and Principles, with Statistical and Historical Illustrations.

The Groundwork of Economic Theory for first year students.

Outlines of English Economic History.

Mediæval England.—The Manor and Agriculture. Industry and the Gilds. The Towns and internal trade. Influence of the Church.

Decay of the System.—Emancipation of the Labourer. The woollen manufacture. Its effects on Agriculture. The Gilds and the “domestic system.” Foreign Trade, the Hanse and the Staple.

The State as an Economic Force.—The Monasteries. Enclosures. Pauperism and the Poor Law. The Gilds and the new centres of industry. Foreign Trade and Chartered Companies. The Mercantile System. The Bank of England. National Debt.

The Industrial Revolution.—New Inventions. Rise of the Factory System. Trade Unions. The New Poor Law. Agriculture and Enclosures. Corn Laws. Foreign Trade. Decline of the Companies. Abandonment of Mercantile System. Free Trade.

Books.—General history. Ashley, *Economic History*; Cunningham, *Growth of English Industry and Commerce*, Vol. II.; Hewins, *English Trade and Finance*; Toynbee, *Industrial Revolution*;

Vinogradoff, *Villeinage in England*; Seeböhm, *Village Communities*; Gross, *The Guild Merchant*; Rogers, *Agriculture and Prices, Six Centuries of Work and Wages*, and *The Economic Interpretation of History*; Traill, *Social England* (Commercial sections); Brentano, *English Guilds*; Webb, *History of Trade Unionism*; Chance, *History of the Poor Law*; Fowle, *The Poor Law*.

Elementary Methods of Investigation, chiefly Statistical.

The object of this class is to enable students of economics to make intelligent use of published blue books and returns rather than to meet the needs of professed statisticians. The lecturer will illustrate the Relation of Statistics to Economics and some of the Common Uses of Statistics, and will explain selected chapters from Giffen's *Essays on Finance*, Jevons' *Investigations in Currency and Finance*, Charles Booth's *Labour and Life in London*, and other works.

The History of Economic Theory.

The work in this class will be to continue that commenced in the Summer Term of 1898, "Adam Smith's Contributions to Economics."

The Economic History of England in relation to that of Foreign Countries. By Professor Hewins.

Subject for Lent Term.—"The State Regulations of Wages."

1. Introductory. The State Regulation of Wages not confined to England. Examples from France, Germany, Italy, Holland, &c.

2. Statutory Development from 1349 to 1563.

(i) Municipal Regulations. (ii) The real and proximate causes of the legislation of 1349-51. (iii) Development of the powers of the Justices of the Peace. (iv) Fifteenth and early sixteenth century assessments. (v) Relation of the wages statutes to other social legislation.

3. The Statute of Apprenticeship (1563).

(i) Character of Elizabethan legislation. (ii) Provisions of the Statute of Apprenticeship.

(iii) Its relation to the Poor Law. (iv) Administration of the Statute (a) 1563-1642, (b) during the Civil War, the Commonwealth and the Protectorate, (c) from the close of the seventeenth century to the repeal of the statute.

The history and principles of banking and currency, with special reference to England.

Michaelmas term.—Ten lectures: (i) The functions and economic significance of money. (ii) Metallic currencies and mintage. (iii) Various systems of legal tender. (iv) Methods of maintaining currency parity. (v) Questions of monetary standard and valuation. (vi) Decimal coinage and international money. (vii) The structure and functions of the English banking system. (viii) The reserve and the discount rate; the money market generally.

Lent term.—Ten lectures: (ix) The regulation of the note issue and the Bank Acts. (x) The Stock Exchange. (xi) The foreign exchanges. (xii) Commercial fluctuations; their causes and history. (xiii) The relation between metallic money, credit, and prices. (xiv) The method of measuring variations in the value of money.

Commercial geography.

A course of lectures in the summer term.

Commercial law.

1. History of commercial law in England. 2. Contract: nature of, generally. Elements common to all contracts. (a) Formalities required. Consideration. Capacity to contract. (b) Effect of mistake, misrepresentation and fraud. (c) Legality of object: wagering contracts. (d) Assignment of the contract: negotiability and bills of exchange. (e) Discharge of the contract.

Attention will be directed to the following special contracts: (i) sale of goods; (ii) contract on the Stock Exchange; (iii) contract of affreightment: charter party and bills of lading; (iv) marine insurance: general and particular average; (v) bills of exchange and cheques; (vi) agency.

Modern company law and its connection with the development of English commerce.

Types of association. 1. Partnerships: no corporate entity. 2. Corporations: no individual responsibility. 3. Intermediate between 1 and 2. (i) Unlimited companies, cf. French "Société en nom collectif." (ii) Limited companies, cf. French "Sociétés anonymes"; German "Aktiengesellschaften." (iii) Companies partly limited, partly unlimited; French "Sociétés en commandite": Act of 1867, sec. 4.

Associations in English law. 1. *Partnerships*: Partnership Act, 1890: constitution of partnerships. (i) Relation to third persons; ordinary powers of partners: authority to bind firm: "holding-out": liability for wrongdoing of partners. (ii) Relation to one another. Right to account and to indemnity. Assignment of share—effect of. Dissolution of partnership: distribution of assets. Goodwill. 2. *Companies*: at common law, 6 Geo. IV., incorporation with individual liability: 1855, Limitation of liability.

Act of 1862 and subsequent Acts. Types of companies: limited by shares; by guarantee; unlimited companies. A. *Formation of Company.* 1. Memorandum of association—the charter of the company: how far capable of subsequent alteration. 2. Articles of association—by-laws of the company; Table A; usual contents apart from Table A. 3. Register of members and mortgages. 4. Preliminary contracts: how far binding on the new company. 5. Prospectus: Act 1867, sec. 38; waiver of by shareholder; shareholders' right of action (i) against directors, (ii) against company.

6. Allotment of shares: transfer of shares: certification. B. *Management of the Company*. 1. Agents—Directors, secretary, auditors. 2. Meetings—Ordinary general meetings, extraordinary general meetings. Procedure by (a) ordinary, (b) special resolutions. 3. Accounts; dividends; profits, what are. C. *Winding-up of Company*. 1. By court: grounds of (sec. 79). 2. Under supervision of court. 3. Voluntary: When allowed (sec. 128); powers of liquidator; list of contributors; A and B list. Reconstruction. French and German methods: comparative statistics.

Bills of sale and bankruptcy.

Bills of sale.—Acts of 1878 and 1882. Objects of the two Acts. Registration. Hire-purchase agreements. Form required by 1882 Act.

Bankruptcy.—Acts 1883 to 1890. Procedure; petition; receiving order. Public examination and creditors' meetings. Debtor's property; official receiver; trustee. Composition and arrangement.

Books recommended—Partnership: Pollock, *Digest of the Law of Partnership*. Companies: Buckley, *On Companies*; Palmer, *Summary of the Law*; Jordan and Gore Browne, *Handbook of Joint Stock Companies*. Contracts: Benjamin, *Sale of Goods*; Anson, *On Contract*; Lowndes, *Marine Insurance*; Melsheimer, *Contracts on Stock Exchange*; Chalmers, *Bills of Exchange*; Chalmers, *Sale of Goods*; Scrutton, *Charter Parties and Bills of Lading*; Abbot, *Merchant Shipping*. Bankruptcy and bills of sale: Ringwood, *Principles of Bankruptcy*; Weir, J., *Bills of Sale*. Generally: Smith, *Mercantile Law*; Scrutton, *Principles of Mercantile Law*.

SECOND YEAR.

The History of Foreign Trade.

Michaelmas Term.—*Ten Lectures*: (i) First period to the middle of the thirteenth century. Influence of the Norman conquest. Immigrants. Foreign merchants. Inter-municipal commerce. (ii) Second period, middle of the fourteenth century to the middle of the sixteenth century: (a) staple system; (b) imports and exports, currency difficulties; (c) development of English manufactures; (d) rise of the merchant adventurers; (e) commercial treaties; (f) development of international commerce; (g) difficulties of commerce, commercial morality, piracy, the navy and the Navigation Acts. (iii) Middle of the sixteenth century to 1703. Dominance of the mercantile system: its general features. The great trading companies and the interlopers. Rise of the Free Trade movement. The Methuen Treaty. (iv) 1703-1793. Walpole's commercial policy. Speculation. Chatham. The American War. Character of Merchants. Free Trade as illustrated by three treaties. Pitt and Adam Smith. Pitt's commercial policy (a) the treaty with France; (b) his reforms; (c) the Irish propositions. (v) 1793-1816. The great war. The suspension of cash payments. The Berlin and Milan decrees. (vi) 1816-1860. (a) internationalism; (b) the Free Trade movement. (vii) 1860 to the present time (a) the Suez Canal; (b) improvements in transit; (c) depression; (d) development of foreign countries. (viii) General questions (a) action and interaction of foreign and domestic trade; (b) protective system and the reasons of its overthrow; (c) currency and finance.

Lent Term.—*Ten Lectures*—French commercial policy at the end of the eighteenth century contrasted with that of England and Prussia. Turgot's Administration. The treaty of commerce between England and France (1786) and its effect on English and French trade. The tariffs of the revolutionary period. The Berlin and Milan decrees. The influence of the revolutionary wars on French policy. The tariffs of the Restoration and the state of opinion in France.

The revolution of 1830 and the bourgeoisie. Measures of the Comte d'Argout. The schemes of 1833. The circular of the Minister of Commerce and the replies of the silk manufacturers of Lyons, the merchants of Bordeaux, the wine growers of the Gironde, &c. Duchâtel's commission. Hostility of the manufacturers. Ordinances of 1834. New Commission and Ordinances of 1836. Treaties with Holland and Belgium. Passy and Guizot. Influence in France of the English Free Trade Movement. Publication in 1845 of Bastiat's *Cobden et la Ligue*. The "Association pour la liberté commerciale." Effect of the Revolution of 1848.

Sainte-Beuve's Propositions, and their rejection in 1851. The Government "pratiquait la liberté, sans vouloir en professer ouvertement la doctrine." Decrees modifying the Protective System. The Treaty between England and France (1860). Anglo-French Relations from 1860 to 1880. Léon Say's Overtures. Conferences in London in 1881. The Treaty of 1882.

The Tariff System of Germany at the end of the Eighteenth Century. Commercial Questions before the German Diet. Stein and Hardenberg in Prussia. The "Nouvelle formule" of 1815. The Commission of 1817. Influence of Adam Smith on German Economics.

The Prussian Tariff of 1818 and its influence in other German States. The congress at Carlsbad. Lis. and the German Commercial Association. Conference at Vienna, 1819-1820. Negotiations of the Middle German States. Abortive conferences at Darmstadt, 1820-1823. Policy of individual States. Tariff war. Treaties between Baden and Hesse-Darmstadt, and Bavaria and Wurtemberg, 1824. Conference at Stuttgart, 1825. Success of Prussia: Schomberg-Sondershausen and other states, 1819-1828. The Bavaro-Wurtemberg Union; the Prusso-Hessian Zollverein; and the Middle German Association, 1828. Hanoverian policy and the Steuerverein, 1830. Breakdown of the Middle German Association. Accession of Electoral Hesse to the Prusso-Hessian Union, 1831. Negotiations between Prussia and the South German States. The first treaty of the Zollverein. States included in the new association. The accession of Baden, Nassau and Frankfort. Negotiations and treaty with Hanover. The influence of List. The Zollverein and Austria. Commercial treaties. Constitution of the Zollverein. The Zoll-Parlament. Economic results of the Zollverein.

Books suggested for both terms—Amé, *Etude sur les tarifs de douanes et les traités de commerce*; Beer, *Geschichte des Welthandels im 19ten Jahrhundert*; Bowering, *Reports*; Maurice Block, *Dictionnaire de la Politique*; Butenval, *Works* (see collection in the British Library of Political Science); Courad, *Handwörterbuch* (selected portions); Falk, *Geschichte des deutschen Zollvereins*; Legoyt, *La France et*

l'Étranger; Levasseur, *Histoire des classes ouvrières depuis 1789*; Levi, *History of British Commerce*; List, *The National System of Political Economy* (trans. by S. S. Lloyd); Morley, *Life of Cobden*; Porter, *Progress of the Nation*; Rand, *Economic History since 1763*; Richelot, *Le Zollverein*; Schönberg, *Handbuch* (selected portions); Seeley, *Life and Times of Stein*; Stephens, *Life and Writings of Turgot*; *Verhandlungen des deutschen Zoll-Parlaments*; Zimmerman, *Geschichte der preussisch-deutschen Handelspolitik*; Cunningham, *Growth of English Industry and Commerce*; Schanz, *Englische Handelspolitik*; Ehrenberg's, *Hamburg und England*; Ochenchowski, *Wirtschaftliche Entwicklung Englands im Mittelalter*; Worms, E., *Histoire de Zollverein allemand*; *Politique Commerciale de l'Allemagne*.

The above course will be followed in the summer term by a class dealing with some special points raised in the lectures, especially with reference to Germany.

Chartered companies.

The essential nature of a chartered body. Two-fold problem for investigation, (a) in economics, (b) in political science. The use and validity of the argument from past to present.

Origin and development of the system—Early trading associations in England. Origin and nature. Economics and political results. Change from regulated to joint stock companies. Conditions—geographical, political, and economic—necessary for the expansion of the system. Dutch and French companies. Peculiar character of the latter. The Individual and State as factors in company promotion. Contrast of English and French methods.

The system in its working—Grouping of companies according to objects and spheres of action. European trading companies. American proprietary companies. Rapid transformation to colonies. East India Company. Gradual change from commercial to political power. The element of State control. Contrast of French and English companies in working and results. Economic and political justification for the system. The function of the interloper. Effects of the system on national trade and development. Causes of decline of companies.

The Modern Revival—Causes. How far conditions similar to the past. Limitation of movement to Africa. Former African companies. The new companies. Their character and charters. Predominance of political question. Relations with State. French projects. Economic position as trading companies. The case of the natives. The companies as a factor in the future affecting (a) the development of home trade, (b) international relations.

Books to read—Bonassieux, *Les Grandes Compagnies de Commerce*; Cawston and Keane, *The Early Chartered Companies*; Hewins, *English Trade and Finance*, Cap. III. (The Trading Companies); Palgrave, *Dictionary of Political Economy* (articles on the various companies); Keltie, *The Partition of Africa*; Brown, *The Genesis of the United States*; Bruce, *Economic History of Virginia in the Seventeenth Century*; Stevens, *The Dawn of British Trade to the East Indies*; Bruce, *History of the East India Company*.

The economics of machinery.

Modern currency standards.

The subject of study will be the time, manner and causes of the introduction of the present standards into Great Britain and Ireland, India, and other British colonies and dependencies, the United States, France, and other Latin Union countries, Germany, the Netherlands, Austria, &c.

The theory and practice of statistics.

Michaelmas and Lent terms—Definition of Statistics. Accumulation of data; methods of collection, tabulation, and summarizing. Use of averages and diagrams, periodic curves, historical curves. Grouping of figures. Illustrated by special studies of figures relating to revenue, population and demography, production, consumption, foreign trade, income, and especially to wages: work practical as far as circumstances allow. Prices, index numbers; workmen's budgets, their collection and use. The accuracy of different classes of estimates and of averages; the conditions of accuracy.

Summer Term.—The Law of Error and Method of Least Squares. The Laws of Great Numbers. Application to Index Numbers and the Accuracy of Averages. Questions of Cause and Effect. Correlation. *The Mathematics employed will be as simple as possible and confined chiefly to the Summer Term.*

Reference will be made to the following books, among others:—Maurice Block, *Traité théorique et pratique de statistique*; Bertillon, *Cours Élémentaire de statistique administrative*; Longstaff, *Studies in Statistics*; Giffen, *Essays in Finance*; Jevons, *Investigations in Currency and Finance*; *The Logic of Chance*.

Some applications of statistics to problems of the present day.

Michaelmas term.—General Principles and Graphic Methods, illustrated by Statistics of Life and Death. The Census. The Registrar-General's Returns. Application to Life Insurance and to Questions of the Public Health. Fallacies. Easy examples will be set to students from actual figures.

Lent term.—The Smoothing of Curves. The Law of the Distribution of Incomes. Periodic Curves. Fluctuations in Credit, Volume of Trade and Want of Employment. Seasonal and Cyclical Fluctuations. Averages and Means with special reference to Index Numbers. The Fall in Prices: its measurement and its cause or causes. The Connection between the Fall in Prices and Depression of Trade.

Summer term.—General Description of Imperial and Local Taxation. Discussion of its Incidence with special reference (i.) to the amount of Taxation borne by the Working Class; (ii.) to the Burden on Land. Death Duties. Progressive and Degressive Taxation. The Problem of the Present Day.

Books used—Reports of the Registrar-General; Reports of the Census; The Statistical Abstract; Abstract of Labour Statistics; Giffen, *Essays in Finance*; Jevons, *Investigations in Currency and Finance*; Farr, *Vital Statistics*.

Systems of taxation.

(i.) The Development of the Theory of Taxation, with special reference to leading writers of England, France and Germany. (ii.) The leading features of English Financial History, from the Act of Union between Great Britain and Ireland to the present time. (iii.) Direct *v.* Indirect Taxation, illustrated from Financial History of England, France and Germany. (iv.) A Special Study of the Income Tax.

Markets and dealing.

Markets and Valuation Generally. "Making a Price." The Theory of Market Price. The Mechanism of a Great Market. Tests and Conditions of Efficiency in Markets. Speculation and its General Economic Effects. The Stock Exchange as a Typical Market. Recent attempts to Regulate Dealing by Legislation.

Foreign banking.

The policy of different states in relation to means of transport.

Bills of exchange, Cheques, and Bankers' liability in connection therewith.

Assignment of debts in English law.

Negotiability.—How different from assignability: "title through a thief." *Raphael v. Bank of England*. Chief instances of negotiable instruments: bills of exchange, cheques, promissory notes, bank notes. Some doubtful cases.

Bills of exchange.—The Act of 1882. 1. How to make a bill. Definition of a bill of exchange. Examples. Legal requirements for a bill: (a) parties, fictitious payee, *Vagliano v. Bank of England*; (b) definite order to pay, money; (c) consideration, accommodation bills; (d) stamp. 2. How to circulate a bill: acceptance, indorsement, presentment for acceptance and for payment, liabilities of acceptor, drawer, indorser. Cheques, law of; how different from bills of exchange; banker's liability for forged signature; crossed cheques; cheques "not negotiable." Promissory notes: peculiarities of. Rules of international law.

This course will be followed in the summer term by a short course on "Bills of sale and bankruptcy."

The principles of international trade, with special reference to the alleged decline in the commercial prosperity of England.

The primary object of these lectures is to convey a general idea of the transactions by which the interchange of goods between different countries is effected. The better to contemplate the principles of international commerce, the currents of trade will at first be supposed steady. Afterwards there will be introduced changes in the forces which produce those currents, the conditions of supply and demand; for instance, an increased facility in the production of some export, or if some of the productive classes insist on a higher remuneration, other things—and in particular their efficiency—remaining the same. These general views will be tested by reference to the leading writers on the theory of international trade: especially Ricardo, Torrens, J. S. Mill and Mangoldt; Professors Marshall, Sidgwick, Bastable, Nicholson, and Pareto.

A second object of the lectures is to apply the abstract theory to the actual circumstances of British trade as shown by recent statistics, in order to estimate both the gravity of the symptoms from which the decline of our commercial prosperity is by some inferred, and the efficacy of the measures which are recommended for the prevention of the supposed danger.

